DEC 15 1930

SCHOOL AND SOCIETY

EDITED BY J. McKEEN CATTELL

Volume XXXII SATURDAY, DECEMBER 13, 1930 Number 833

CONTENTS

Statistics of Registration in American Universities and Colleges: RAYMOND WALTERS 787

Educational Events:
Educational Tours to Europe; Inter-American Institute of Intellectual Cooperation; Recommendations of the White House Conference on Children's Libraries; The Annual Meeting of the American Association of University Professors; The Association of Colleges and Secondary Schools of the Middle States and Maryland; The University of Wisconsin and the Foundations; In Memory of William Barton Rogers 798

Educational Notes and News 802

Discussion:
Virgil Bimillennium Celebrated Prematurely: WALTER CROSBY EELLS. *Research in the Payment of School Executives:* QUINTUS H. FLACCUS 805

Special Correspondence:
Independent Work for Freshmen: PAUL P. BOYD. *The Alumni University:* THOMAS DIAMOND 808

Quotations:
Character Education 810

Reports:
Philadelphia Schools: SAMUEL P. ABELOW 811

Educational Research and Statistics:
An Investigation of the Success of the Indiana High-school Graduates in Indiana Higher Institutions of Education: JOHN M. STALNAKER. *Reliability of Vocational Choices of High-school Students:* WARREN W. COXE 813

$5.00 A YEAR PUBLISHED WEEKLY 15 CENTS A COPY

THE SCIENCE PRESS

LANCASTER, PA. GARRISON, N. Y.

GRAND CENTRAL TERMINAL, NEW YORK CITY

Entered as second-class matter August 15, 1923, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879

SIXTH YEARBOOK
OF THE INTERNATIONAL INSTITUTE OF TEACHERS COLLEGE

EDITED BY I. L. KANDEL

Professor of Education, Teachers College, Columbia University

This Yearbook is devoted to a consideration of a single problem—*The Philosophy Underlying National Systems of Education.* The discussion of the problem is approached from a number of different angles by the following contributors: For England, Sir Michael Sadler and Professor F. Clarke; for France, Félix Pécaut, Director General of Public Instruction; for Germany, Professor Aloys Fischer of the University of Munich; for Italy, Director E. Codignola of the R. Instituto Superiore di Magistero, Florence; for Japan, Professor Kumaji Yoshida of the Tokyo Imperial University; for the United States, Professor Kandel. *574 pp. Cloth, $3.50*

ESSAYS IN COMPARATIVE EDUCATION

BY I. L. KANDEL

This volume consists of a collection of articles and lectures published or delivered by Professor Kandel in this country and abroad on a great variety of phases of modern education considered from the comparative standpoint. There are thus included discussions of the character of national systems of education, administration, theory and practice in the curriculum and methods of instruction, current tendencies, and problems of secondary education. The field from which the material is drawn is wide and includes the United States, England, France, Germany, Italy, the South American countries, and Mexico. *235 pp. Cloth, $2.50*

BUREAU OF PUBLICATIONS
TEACHERS COLLEGE COLUMBIA UNIVERSITY
NEW YORK CITY

SOCIAL SCIENCES IN THE BALKANS AND IN TURKEY

By ROBERT J. KERNER

This book represents the results of a pioneer attempt at the collection of data not heretofore assembled, concerning a group of nations that desperately need, for their very existence, the aid of the Social Sciences.

The countries visited were Jugoslavia, Rumania, Bulgaria, Greece, and Turkey. The investigations covered the political and educational situations; libraries, academies, learned societies, and their resources in regard to the Social Sciences; publications and publishing possibilities. The book concludes with a discriminating discussion of the greatest present needs.

Cloth, $1.75 postpaid

UNIVERSITY OF CALIFORNIA PRESS
Berkeley, California

SCHOOL AND SOCIETY

EDITED BY J. McKEEN CATTELL

WITH WHICH IS COMBINED THE

EDUCATIONAL REVIEW

EDITED BY WILLIAM McANDREW

Volume XXXII SATURDAY, DECEMBER 13, 1930 Number 833

STATISTICS OF REGISTRATION IN AMERICAN UNIVERSITIES AND COLLEGES, 1930

By DEAN RAYMOND WALTERS

SWARTHMORE COLLEGE

DESPITE the present economic depression the attendance at American colleges and universities this year shows an upward trend exceeding that of the past several years and approaching the percentage increase of the post-war period. The full-time enrolment at 431 institutions from which reports have been received totals 578,671 for November 1, 1930. For 426 of these the gain over their totals for November 1, 1929, was 19,427, or three and one half per cent. The grand totals, including part-time students and the summer session of 1930, are 867,226 for these institutions, or an increase of about one per cent. over the same totals for 1929.

Analysis reveals that 60 per cent. of 421 of these colleges and universities report increases, with the size groups ranging from the small colleges of enrolment under 500, of which 50.5 per cent. had increases, to the larger institutions of 3,000 and upward enrolment, of which 71 per cent. report increases. Details are shown in the tabulation herewith.

Last year the increase in full-time students for November 1, 1929, over November 1, 1928, was one and one half per cent. for 226 universities and colleges on the approved list of the Association of American Universities, and the increase in grand-total enrolment was two per cent. These

1930 AND 1929 GROUP COMPARISONS
Totals of Full-time Enrolment

Size of Group	No. in Group	1930 Full-Time	1929 Full-Time
3,000 and up	49	275,277	266,717
1,000 to 3,000	94	161,289	152,288
500 to 1,000	97	69,159	67,184
Up to 500	186	60,957	61,066
Totals	**426**	**566,682***	**547,255**

* Not including College of City of New York, 5,312, Hunter College, 4,614, and three others, 2,063.

1930 AND 1929 GROUP COMPARISONS
Analysis of Full-time Increases

Size of Group	No. Reporting Increases	No. Reporting Decreases	Percentage of Increases
3,000 and up	35	14	71.0 per cent.
1,000 to 3,000	63*	29	68.0 " "
500 to 1,000	63	34	65.0 " "
Up to 500	93†	90	50.5 " "
Totals	**254**	**167**	**60.0 per cent.**

* Two additional institutions had same enrolment both years.

† Three additional institutions had same enrolment both years.

TABLE I

	California	Chicago	Cincinnati	Columbia	Cornell	Harvard	Illinois	Indiana	Iowa	Johns Hopkins	Kansas	Michigan	Minnesota
College men	3972	1683	513	2443	1315	3239	1911	1436	1442	371	1414	2699	2623
College women	5724	1310	514	1007	630	...	1889	896	1124	...	967	1515	1995
Engineering	1506	...	1657	224	1115	262	1755	...	413	359	641	1432	2057
Law	387	369	157	566	179	1597	272	144	214	...	145	534	253
Medicine	292	546	292	430	237	517	576	439	391	278	270	573	659
Non-Prof. Graduate	1897	1465	253	2669	782	1048	1096	268	329	366	267	1160	1138
Agriculture	518	...	...	...	737	...	740	...	...	...	...	...	...
Architecture	118	...	...	128	173	67	259	...	...	...	*	300	*
Art	142	...	364	...	17	...	...	11	*	...	*	*	...
Commerce	1087	221	*	389	...	1074	2133	181	361	90	147	108	412
Dentistry	176	...	...	223	...	119	149	159	181	...	...	290	257
Divinity	...	251	...	...	...	99	...	...	...	...	...	...	...
Education	2410	47	511	5537	696	285	892	372	*	17	84	387	1534
Forestry	81	...	...	...	100	...	...	...	...	...	...	47	431
Journalism	...	...	...	141	...	...	101	160	*	...	*	*	...
Music	90	...	...	...	...	...	163	78	109	...	263	199	...
Pharmacy	290	...	...	676	...	...	682	...	99	...	48	84	146
Other courses	16	172	276	525	735	139	134	187	306	97	83	245	1117
Deduct duplicates	1384	385	...	...	991	...	43	171	109	...	148	142	132
Total	**17322**	**5679**	**4537**	**14958**	**5725**	**8446**	**12709**	**4160**	**4860**	**1578**	**4181**	**9431**	**12490**
Part-time	...	2326	5565	7214	...	...	...	66	860	3255	120	...	...
Summer session	7849	5310	1252	13887	2385	2409	2553	2086	3324	1147	1869	3995	6015
Deduct duplicates	2374	1558	...	2915	...	...	1093	764	991	600	592	1670	...
Gd. tot., Nov. 1, '30	**22797**	**11757**	**11454**	**33144**	**8110**	**10855**	**14169**	**5548**	**8053**	**5974**	**5578**	**11756**	**18505**
Gd. tot., Nov. 1, '25	**24628**	**12950**	**7738**	**29701**	**7420**	**10396**	**12785**	**5136**	**6915**	**4653**	**5196**	**12181**	**18200**
Gd. tot., Nov. 1, '20	**16379**	**11394**	**3523**	**23793**	**7349**	**7786**	**9652**	**3585**	**5235**	**3203**	**4036**	**10158**	**9565**
Exten. courses	12334	6100	1103	13000	...	1300	...	6946	1620	...	1806	2428	7891
Teaching staff	1070	775	590	1813	891	1625	1162	308	533	660	250	833	688
Administrative staff	55	75	19	65	13	15	69	31	118	7	17	76	10

* Included elsewhere.

rates were below the gains of preceding years and it had appeared possible that a virtual plateau had been reached.

The figures for the present academic year, covering nearly twice as many institutions, come therefore as a surprise in the full-time gain of three and one half per cent. The explanation probably lies in the continued faith of the American people in higher education and likewise in present economic conditions: when business and industrial openings are lacking for their children, parents who have savings are disposed to send them on to college. The statistics reveal that this has been done more in the case of boys than of girls. There are decreases in attendance at numerous women's colleges and in the enrolment of women at a good many of the large coeducational universities.

The fact that the grand-total figures show a gain of only one per cent. is largely due to smaller attendance at the university summer sessions last summer. In general the part-time enrolment at the large universities this fall corresponds with the increased full-time enrolment.

It should be explained that the College

TABLE I—(*Concluded*)

Missouri	Nebraska	Northwestern	Ohio State	Pennsylvania	Pittsburgh	Princeton	Stanford	Syracuse	Texas	Tulane	University of Washington	Virginia	Washington University	Western Reserve	Wisconsin	Yale
1115	1008	1236	1550	1072	1460	2047	3076	845	1730	574	902	1251	690	947	2641	1680
546	671	1205	586	47	561	...	500	669	1454	463	1400	3	660	760	3043	...
403	671	289	1628	339	848	204	326	370	1349	274	972	133	386	...	1284	545
134	140	393	288	495	323	...	197	114	287	138	301	286	131	227	309	325
72	318	740	343	663	264	...	186	182	339	468	...	226	321	255	309	199
136	156	570	1104	591	1353	194	...	209	225	124	579	204	321	115	1150	775
349	579	...	882	...	...	...	...	60	...	...	...	...	...	...	611	...
...	51	...	98	319	...	...	...	69	•	52	113	•	123	69	...	107
113	85	...	...	33	...	...	13	487	•	171	258	55	139	...	...	151
201	756	463	1989	2267	794	...	71	854	305	195	1193	204	187	...	274	...
...	110	440	207	316	327	...	...	...	...	...	...	...	199	133	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	258
352	1224	294	1633	671	870	...	98	136	103	•	240	71	...	381	630	•
...	•	...	•	...	...	...	...	420	...	...	128	...	...	...	...	40
272	181	96	•	...	•	...	42	99	•	•	67	...	...	...	120	...
...	173	292	...	35	...	...	...	•	...	43	315	...	...	...	154	120
...	94	...	152	...	283	...	...	...	70	4	137	...	...	91	84	...
...	314	282	338	404	15	...	...	539	108	133	1342	...	289	595	112	1060
98	736	116	89	16	15	...	933	...	...	88	579	22	...	...	320	101
3997	**5795**	**6184**	**10709**	**7252**	**7098**	**2445**	**3576**	**5053**	**5970**	**2551**	**7368**	**2411**	**3445**	**3573**	**9401**	**5259**
304	533	6216	130	5590	4540	...	...	264	467	752	...	30	291	6624	...	661
2079	2665	2502	4487	2070	3509	149	1263	1981	3932	1160	3272	2446	938	2253	5171	60
150	...	750	1595	1144	1617	149	...	...	1166	...	443	553	291	...	1267	66
6430	**8993**	**14152**	**13730**	**13828**	**13515**	**2445**	**4839**	**7298**	**9203**	**4463**	**10197**	**4334**	**4383**	**12450**	**10668**	**5914**
4920	**8543**	**8712**	**10725**	**15390**	**10456**	**2514**	**3865**	**6479**	**7202**	**3982**	**8138**	**4259**	**3815**	**4368**	**11371**	**5366**
...	**5730**	**7567**	**7799**	**10579**	**5904**	**1814**	**3134**	**4630**	**5152**	**3032**	...	**3409**	**2520**	**3272**	**9306**	**3896**
...	2239	...	...	2430	946	...	...	1592	2904	...	6319	1776	2770	...	10574	...
296	388	626	897	1406	867	298	567	640	448	425	466	246	436	720	623	667
23	27	3	12	109	67	36	82	27	57	28	73	21	22	19	39	68

of the City of New York and Hunter College of the City of New York are not included in the tabulated group comparisons of increases because their reports present losses which are but seeming losses. Last May the Brooklyn branches of both colleges were combined as a separate institution under the title, the Brooklyn College of the College of the City of New York. Three other colleges, having a total of 2,063 students, are also omitted because their 1929 figures are not available.

Table I gives figures in detail of universities which have been included for some years in statistical articles in *Science* and, later, in SCHOOL AND SOCIETY. Table III supplies a less detailed report upon students and teachers of additional institutions. In recent years, the institutions considered were those on the list approved by the Association of American Universities. Because of economic conditions it was thought that a wider range would be useful this year and, accordingly, all colleges and universities on the list of the American Council on Education were asked to supply their enrolment figures. Table III, therefore, includes institutions approved by

national and regional organizations as follows: New England Association of Colleges and Preparatory Schools; Association of Colleges and Secondary Schools of the Middle States and Maryland; North Central Association of Colleges and Secondary Schools; Association of Colleges and Secondary Schools of the Southern States; Northwest Association of Secondary and Higher Schools.

Following the differentiation introduced in this series in 1920, Tables I, II and III are arranged to bring out clearly the enrolment of full-time and of part-time undergraduates. The full-time regular student is defined for this series as a student who has completed a four-year high-school course and is devoting his full time (twelve hours a week or more) to study during the collegiate year. The student whose main time and attention are given to some other employment and who takes college and university courses in late afternoon, evening and Saturday classes is listed as a part-time student. The grand-total figures for 1930 include full-time regular students, part-time students and summer school students of 1930, but do not include extension and correspondence students, who are, however, recorded in Table I.

Table II gives a list of the twenty-five largest institutions of those considered in this series.

The ten largest liberal arts enrolments are reported by the following institutions: University of California (at Berkeley and at Los Angeles), 9,696; New York University, 5,480; Minnesota, 4,618; Michigan, 4,214; College of the City of New York, 3,884; Illinois, 3,800; Columbia, 3,450; Harvard, 3,239; Texas, 3,184.

The five largest enrolments of men undergraduates in liberal arts colleges or departments are as follows: New York University, 3,986; California, 3,972; College of the City of New York, 3,884; Harvard, 3,239; Michigan, 2,699.

TABLE II

University	Regular Students Full-Time	Rank	All Resident Students	Rank
California	17,322	1	22,797	4
Columbia	14,958	2	33,144	1
Illinois	12,709	3	14,169	7
Minnesota	12,490	4	18,505	5
New York U.	12,147	5	29,214	2
Ohio State	10,709	6	13,730	10
Michigan	9,431	7	11,756	16
Wisconsin	9,401	8	10,668	19
Harvard	8,218	9	10,855	18
U. of Wash.	7,368	10	10,197	20
Pennsylvania	7,252	11	13,828	9
Pittsburgh	7,098	12	13,515	12
Northwestern	6,184	13	14,152	8
Texas	5,970	14	9,203	22
Nebraska	5,795	15	8,993	23
Cornell	5,725	16	8,110	....
Chicago	5,679	17	11,757	15
Boston	5,606	18	12,713	13
C. C. of N. Y.	5,312	19	24,752	3
Yale	5,259	20	5,914	....
Oklahoma	5,210	21	6,766	....
Iowa	4,860	22	8,053	....
Temple	4,736	23	8,992	24
Hunter	4,614	24	15,447	6
Cincinnati	4,537	25	11,454	17
U. of S. Cal.	4,369	....	13,627	11
Fordham	4,083	....	8,781	25
Western Reserve	3,573	....	12,450	14
C. C. of Detroit	2,985	....	9,342	21

As to women undergraduates, the size order in coeducational universities for the five largest colleges is: California, 5,724; Wisconsin, 2,043; Minnesota, 1,995; Illinois, 1,889; Michigan, 1,515.

The ten largest exclusively women's colleges are: Hunter, 4,614; Smith, 1,986; North Carolina College for Women, 1,704; Florida State College for Women, 1,676; Wellesley, 1,550; Texas State College for Women, 1,467; Mississippi State College for Women, 1,282; Georgia State College for Women, 1,195; Vassar, 1,157; Mount Holyoke, 1,023.

The five technical institutions or departments reporting the largest engineering enrolment are: Purdue University, 2,775;

TABLE III

Institution	Students Full-time	Students All residents	Teaching Staff
Adelphi	584	584	42
Agnes Scott	450	458	49
A. & M. College of Tex.	2,423	2,970	192
Alabama C.	860	1,283	88
Alabama Polytechnic Inst.	1,814	3,004	134
Albion	754	754	47
Albright	368	401	30
Alfred U.	488	568	40
Allegheny	603	660	42
Alma	283	306	21
American U. (C.A.L.)	295	308	32
Amherst	676	679	68
Antioch	622	622	62
Arizona State T. C.	265	777	60
Armour I. of T.	823	910	76
Ashland	298	692	23
Augustana	394	528	36
Baker U.	376	556	32
Baldwin-Wallace	453	520	43
Ball State T. C.	961	2,650	66
Bates	641	891	42
Battle Creek	444	567	35
Baylor C. for Women	617	850	48
Baylor U.	1,111	1,819	86
Beloit	482	494	44
Berea	464	628	44
Bethany	346	348	26
Birmingham-South.	880	1,589	70
Blue Mountain	287	649	26
Boston C.	1,776	2,596	127
Boston U.	5,606	12,713	565
Bowdoin	561	561	54
Bradley Polytech. In.	715	1,123	90
Brenau	321	321	24
Bridgewater	208	214	20
Brigham Young U.	1,102	1,733	84
Brown U.	1,841	1,874	162
Bryn Mawr	460	499	82
Bucknell U.	1,162	1,458	76
Calvin	350	358	23
Capital U.	473	533	52
Carleton	920	931	57
Carnegie Tech.	2,547	4,632	280
Carroll	457	538	27
Carson-Newman	331	546	22
Carthage	264	307	25
Case S.	758	796	76
Catawba	318	573	27
Catholic U.	1,040	1,890	121
Centenary	498	850	47
Central C.	560	761	46
Central S. T. C.	1,105	1,588	84
Centre	386	386	28
Citadel	622	622	40
Claremont Grad. S.	39	392	36
Clark U.	314	524	36
Clarkson C. of Tech.	406	406	27
Clemson Agr. C.	1,322	1,585	104
Coe	791	1,057	70
Coker	162	163	26
Colby	608	612	37
Colgate U.	1,009	1,009	80
C. of Charleston	226	250	18
C. City of Detroit	2,985	9,342	225
C. City of N. Y.	5,312	24,752	700
C. of Emporia	340	352	35
C. of the Holy Cross	1,037	1,039	67
C. of Holy Names	200	230	32
C. of Idaho	389	389	25
C. of Mt. St. Vincent	518	593	41
C. of New Rochelle	790	817	51
C. of Notre Dame of Md.	122	235	23
C. of the Pacific	701	974	74
C. of Puget Sound	573	1,040	42
C. of Sacred Heart	196	196	38
C. of St. Catherine	376	549	48
C. of St. Elizabeth	263	352	34
C. of St. Rose	202	203	—
C. of St. Teresa	312	581	31
C. of St. Thomas	449	456	46
C. of Wooster	894	931	75
Colorado Ag. C.	1,348	2,146	111
Colorado C.	523	682	63
Colorado S. of Mines	503	654	46
Colorado State T. C.	1,274	3,965	107
Columbia U.	14,958	33,144	1,813
Concordia	414	432	39
Connecticut C. for W.	567	577	50
Converse	385	387	40
Cornell C.	520	638	45
Cornell U.	5,725	8,110	891
Creighton U.	1,871	2,534	175
Dartmouth	2,323	2,323	258
Davidson	622	697	42
Denison U.	829	996	71
De Paul U.	524	524	33
DePauw U.	1,572	1,663	102
Dickinson	551	551	36
Doane	226	228	24
Dominican	199	436	43
Drake U.	1,179	1,494	97
Drexel Inst.	1,564	1,685	107
Drury	405	418	33
Duke U.	2,279	3,807	262
D'Youville	215	215	17
Earlham	425	445	39
Elmira	579	587	60
Elon	354	362	25
Emory and Henry	347	562	20
Emory U.	1,171	1,846	239
Erskine	273	275	20
Eureka	211	211	20
Florida S. C. for W.	1,676	2,596	135
Fordham U.	4,083	8,781	384
Franklin C. of Ind.	305	311	27
Franklin & Marshall	730	730	45
Friends U.	357	445	38
Furman U.	418	1,330	27
Geneva	502	835	31
George Peabody S. for T.	784	3,574	146
Georgetown U.	2,624	2,651	359
George Wash'ton U.	1,847	7,538	393
Georgia S. of Tech.	2,334	2,461	160
Georgia S. C. for W.	1,195	2,051	85
Georgia S. W.'s Coll.	288	508	26
Georgian Court C.	158	230	19
Gettysburg	586	693	49
Goucher	878	878	84
Greensboro	267	267	31
Grinnell	660	780	62
Grove City C.	632	776	42
Guilford	291	315	24
Gustavus Adolphus	426	457	20
Hamilton	454	454	42
Hamline	456	474	39
Hampden-Sydney	250	250	16
Hanover	242	242	20
Harvard U.	8,446	10,855	1,625
Hastings	483	696	35
Haverford	300	300	33
Heidelberg	324	326	39
Hendrix-Henderson	277	284	22
Hillsdale	360	441	30
Hiram	342	345	27
Hobart	330	330	40
Hood	463	463	48
Hope	413	413	22
Howard U.	1,820	2,530	233
Hunter	4,614	15,447	687
Illinois C.	389	397	25
Illinois S. T. C., East.	671	1,351	62
Illinois S. T. C., West.	746	2,186	67
Illinois Wesleyan	631	668	56
Illinois W's C.	418	443	38
Immaculata	159	533	36
Incarnate Word	292	548	37
Indiana S. T. C.	1,262	1,503	84
Indiana U.	4,160	5,548	308
Internat'l. Y.M.C.A.	544	704	42
Ia. State A. & M.	4,276	4,992	394
Ia. State T. C.	2,106	4,055	191
James Millikin	431	450	34
Jamestown	387	411	41
John Carroll U.	446	447	20
Johns Hopkins U.	1,578	5,974	660
Judson	245	256	30
Juniata	475	672	41

TABLE III—(*Continued*)

Institution	Students Full-time	Students All residents	Teaching Staff
Kalamazoo	395	400	30
Kansas S. T. C., Emporia	1,165	2,698	100
Kansas S. T. C., Pittsburg	1,092	2,852	120
Kenyon	237	239	29
Keuka	230	233	29
Knox	667	667	44
Lafayette	1,002	1,002	96
Lake Erie	182	182	31
Lake Forest	370	372	28
Lawrence	728	852	50
Lebanon Valley	363	511	28
Lehigh U.	1,519	1,693	157
Lenoir-Rhyne	353	1,133	37
Lewis Inst.	1,100	1,555	100
Limestone	239	251	23
Lincoln U.	366	366	17
Lindenwood	410	410	44
Linfield	293	305	23
Loretto Heights	110	216	22
Louisiana State U.	2,123	2,618	170
Loyola U. (New Orleans)	471	1,593	—
Luther	327	330	23
Lynchburg	216	227	20
Macalester	499	502	40
Manhattan	757	761	52
Marietta	333	345	35
Marquette U.	2,512	3,711	367
Marshall	1,422	2,541	84
Marygrove	454	1,039	65
Marymount	200	200	45
Maryville	767	770	38
Marywood	376	876	59
Massachusetts Ag. C.	645	751	110
Massachusetts I. of T.	3,209	3,209	433
Meredith	418	418	—
Miami U.	2,215	2,985	115
Michigan C. of M. & Tech.	542	590	50
Michigan S. C. of Ag. & Apld. Sc.	3,210	3,611	288
Michigan S. Norm.	2,130	4,175	202
Michigan S. T. C., Northern	711	774	58
Michigan S. T. C., Western	2,126	4,010	209
Middlebury	1,040	1,152	50
Mills	505	511	83
Millsaps	373	509	25
Mississippi A. & M. C.	1,481	1,554	100
Mississippi C.	365	684	22
Mississippi S. C. for Women	1,282	1,393	95
Missouri S. T. C., Northeast	622	1,898	58
Missouri S. T. C., Northwest	669	1,374	57
Missouri S. T. C., Southeast	561	1,548	54
Missouri S. T. C., Southwest	1,055	2,628	70
Missouri Valley	267	313	24
Monmouth	454	532	31
Moravian	112	122	14
Morgan	385	498	23
Mount Holyoke	1,023	1,068	115
Mount Mary	210	593	35
Mount St. Mary's	62	62	7
Mount Union	508	590	33
Muhlenberg	453	835	32
Municipal U. of Wichita	1,071	1,660	80
Muskingum	772	1,475	56
Nebraska Wesle'n U.	569	847	58
Newcomb	612	651	67
New Mexico C. of A. & M. Arts	442	594	49
N. Y. State C. for T.	1,155	1,999	90
New York U.	12,147	29,214	1,674
Niagara U.	345	345	30
N. Carolina C. for W.	1,704	2,684	115
North Central	466	476	39
North Dakota Ag. C.	1,394	1,642	123
Northwestern U.	6,184	14,152	626
Oberlin	1,657	1,748	158
Occidental	682	700	68
Ohio State U.	10,709	13,730	897
Ohio Wesleyan U.	1,821	1,842	146
Oklahoma A. & M.	3,249	5,116	273
Oklahoma C. for W.	784	794	54
Oregon State Ag. C.	3,234	4,559	328
Ottawa U.	217	292	19
Otterbein	354	366	41
Ouachita	224	224	27
Our Lady of the Lake	207	827	32
Park	492	497	35
Parsons	279	425	27
Penn	264	344	25
Pennsyl'a C. for W.	306	312	30
Penn. State	4,354	7,213	465
Poly. Tech. Inst. of Brooklyn	470	2,242	45
Pomona	751	912	84
Presbyterian	222	222	16
Princeton U.	2,445	2,445	298
Purdue U.	4,329	4,849	317
Radcliffe	881	1,077	270
Randolph-Macon M.	253	253	16
Randolph-Macon W.	756	776	65
Reed	351	376	34
Rensselaer Poly. In.	1,701	1,701	130
Rhode Island State.	622	622	48
Rice Inst.	1,369	1,369	95
Ripon	360	390	28
Roanoke	260	412	22
Rockford	375	375	35
Rollins	415	425	43
Rosary	286	674	45
Rose Poly. Inst.	331	331	18
Russell Sage	429	441	40
Rutgers U.	2,328	3,914	259
St. Ambrose	212	319	21
St. Benedict's	202	462	22
St. Bonaventure's	347	551	34
St. John's (Ann.)	290	291	27
St. John's (Bklyn.)	3,272	5,390	127
St. Joseph's (Em'b.)	168	308	34
St. Joseph's (Phila.)	....	....	....
St. Joseph C. for W.	293	293	31
St. Law. U. (C.L.S.)	677	881	52
St. Mary's (Ind.)	360	360	55
St. Mary's (Cal.)	646	686	31
St. M.'s-of-the-Woods	240	1,274	38
St. Olaf	925	928	62
St. Thomas	647	705	38
St. Vincent	368	408	35
Salem	324	334	51
Scripps (W.)	189	189	21
Seton Hill	258	512	43
Shorter	183	183	27
Shurtleff	239	294	13
Simmons C.	1,499	1,744	151
Simpson	556	721	45
Skidmore	653	752	63
Smith	1,986	2,102	238
S. Dak. S. S. of M.	369	376	23
Southw. C., Memphis	425	454	23
Southw. C., Winfield	527	656	48
Southw. Louisiana I.	918	1,318	59
Southwestern U.	425	621	30
Springhill	164	165	19
Stanford U.	3,576	4,839	567
State C. of Wash.	3,266	3,703	224
Sterling	161	222	20
Stevens Inst. of T.	476	508	48
Swarthmore	590	590	65
Sweet Briar	466	466	44
Syracuse U.	5,053	7,298	640
Tarkio	142	161	23
Temple U.	4,736	8,992	694
Texas S. C. for W.	1,467	1,495	130
Texas Tech. C.	1,881	2,788	116
Thiel	235	244	26
Transylvania	321	469	29
Trinity C. (Hartfd.)	351	351	43
Trinity C. (Wash.)	384	408	45
Trinity U.	342	408	31
Tufts	1,909	1,925	434
Tulane U.	2,551	4,463	425

TABLE III—(*Concluded*)

Institution	Students Full-time	Students All residents	Teaching Staff
Union	821	821	83
U. S. Military Acad.	1,254	1,254	169
U. S. Naval Acad.	2,050	2,050	239
U. of Akron	1,062	1,553	84
U. of Alabama	3,799	5,913	180
U. of Arizona	1,581	2,153	160
U. of Arkansas	1,698	2,640	199
U. of Buffalo	1,667	3,689	448
U. of California	17,322	22,797	1,070
U. of Chattanooga	442	679	26
U. of Chicago	5,679	11,757	775
U. of Cincinnati	4,537	11,454	590
U. City of Toledo	1,199	2,750	97
U. of Colorado	3,213	6,673	139
U. of Dayton	1,702	3,822	193
U. of Delaware	735	1,073	80
U. of Denver	....	....	....
U. of Detroit	2,241	3,258	190
U. of Dubuque	152	245	23
U. of Florida	2,248	3,453	148
U. of Hawaii	1,049	1,859	93
U. of Idaho	1,808	2,276	163
U. of Illinois	12,709	14,169	1,162
U. of Iowa	4,860	8,053	600
U. of Kansas	4,181	5,578	250
U. of Kentucky	2,990	4,441	239
U. of Maine	1,598	1,915	162
U. of Maryland	2,890	3,498	490
U. of Michigan	9,431	11,756	833
U. of Minnesota	12,490	18,505	688
U. of Missouri	3,997	6,430	296
U. of Montana	1,274	1,915	89
U. of Nebraska	5,795	8,993	388
U. of Nevada	877	1,096	76
U. of N. Hampshire	1,566	1,871	136
U. of New Mexico	822	1,385	65
U. of N. Carolina	2,749	4,646	220
U. of N. Dakota	1,620	2,163	132
U. of Notre Dame	3,132	4,091	175
U. of Oklahoma	5,210	6,766	301
U. of Oregon	3,160	4,791	216
U. of Penna.	7,236	13,828	1,406
U. of Pittsburgh	7,098	13,515	867
U. of Redlands	519	552	50
U. of Richmond	581	762	32
U. of Rochester	972	1,913	139
U. of the South	275	293	32
U. of S. Carolina	1,526	2,139	105
U. of S. Dakota	991	1,225	95
U. of South. Calif.	4,369	13,627	430
U. of Tennessee	3,234	5,136	324
U. of Texas	5,970	9,203	448
U. of Tulsa	610	1,009	48
U. of Utah	3,196	3,730	186
U. of Vermont	1,240	2,185	190
U. of Virginia	2,411	4,334	246
U. of Washington	7,368	10,197	466
U. of Wisconsin	9,401	10,668	623
U. of Wyoming	1,120	2,052	104
Ursinus	468	468	36
Utah State Ag.	1,215	1,718	89
Vanderbilt U.	1,521	1,521	318
Vassar	1,157	1,271	155
Villanova	1,095	1,489	50
Va. Military Inst.	722	722	51
Va. Poly. Inst.	1,533	1,670	137
Wabash	381	386	30
Wake Forest	666	1,005	37
Washburn	666	898	72
Washington C.	248	248	23
Washington U.	3,445	4,383	436
Wash. & Jefferson	443	620	36
Washington & Lee	915	915	58
Webster C. for W.	149	153	35
Wellesley	1,550	1,550	155
Wells	270	271	40
Wesleyan C.	325	329	29
Wesleyan U.	608	608	61
Western C. for W.	391	391	37
Western Maryland	401	541	43
Western Reserve U.	3,573	12,450	720
Western S. C. of Col.	258	607	30
Westminster (Mo.)	277	277	19
Westminster (Pa.)	416	447	31
West Va. State C.	607	970	60
West Va. U.	2,492	3,343	229
West Va. Wesleyan	345	609	31
Wheaton (Ill.)	611	690	40
Wheaton (Mass.)	450	450	59
Whitman	517	522	39
Whittier	397	420	34
Willamette U.	546	617	44
William & Mary	1,416	2,160	80
Williams	802	802	86
William Jewell	401	493	25
William Smith	132	132	37
Wilson	443	453	43
Winthrop	1,734	2,213	96
Wisconsin S. T. C. (La Crosse)	694	1,217	48
Wisconsin S. T. C. (Oshkosh)	611	1,131	49
Wittenberg	950	1,611	93
Wofford	342	602	23
Woman's C. of Ala.	416	558	44
Worcester Poly. Inst.	617	662	71
Yale U.	5,259	5,914	667
Yankton	281	391	....
Totals	578,671	871,184	

Massachusetts Institute of Technology, 2,564; Minnesota, 2,057; Illinois, 1,755; Cincinnati, 1,657.

The five largest law schools are: Harvard, 1,597; New York University, 1,371; Fordham, 1,186; Columbia, 566; Michigan, 534.

Among medical schools those having the largest enrolment are: Northwestern, 740; Pennsylvania, 663; Minnesota, 659; Illinois, 576; Michigan, 573; Chicago, 546; Harvard, 517; Indiana, 439; Columbia, 430; Ohio State, 343. As is well known, there has been a deliberate curtailment of numbers among leading medical schools.

The five largest non-professional graduate schools of the United States are: Columbia, 2,669; California, 1,897; Chicago, 1,465; Pittsburgh, 1,353; Wisconsin, 1,150. There is no clear-cut differentiation between full-time and part-time students in the reports of many graduate schools; the enrolments are listed as interpreted by the individual institutions.

In numbers of students in commerce and finance, the largest schools are reported as follows: Pennsylvania, 2,267; Illinois, 2,133; Ohio State, 1,989; Boston University, 1,960; New York University, 1,739; University of Washington, 1,193; Harvard (graduate), 1,074.

Northwestern has decidedly the largest

dental school, 440 students; Pittsburgh is second with 327.

In the field of education Teachers College of Columbia University retains its lead with 5,537. Teachers College, University of California at Los Angeles, has 1,630 students, and there are 745 in education in the non-professional graduate school. Ohio State has an education enrolment of 1,633. Minnesota has forged ahead with 1,534 education students; Table III includes a number of normal colleges not reported in this list last year.

An increase of 30 over last year brings the Yale Divinity School enrolment up to 258, placing it ahead of the divinity enrolment at the University of Chicago, which is 251.

The forestry school at Syracuse University is the largest, with 420 students. The largest enrolment among schools of journalism is that of the University of Missouri, which has 272 students. With 292, Northwestern continues to have the greatest attendance among university schools of music. Illinois, with 682 students in pharmacy, takes the numerical lead held last year by Columbia, which now has 676.

The extent to which urban universities are making collegiate work available for secondary school teachers and others who take late afternoon, evening or Saturday classes is shown in Table I under part-time enrolment.

The 1930 summer-school attendance was in many cases slightly below that of 1929. The five largest summer sessions were at these universities: Columbia, 13,887; California, 7,849; Minnesota, 6,015; Chicago, 5,310; Wisconsin, 5,171.

The following paragraphs explain statistics presented in Table I and give additional information:

The University of California returns embrace what President Sproul in his inaugural address in October emphasized as being two equally important parts of the state university, the University of California at Berkeley and the University of California at Los Angeles. A comparison with 1929 reveals an increase of 80 in the full-time total of 17,322. Due to a smaller attendance in 1930, the grand total is 22,797 as compared with 25,274 in 1929. In Table I the engineering figures given include 319 students in chemistry. The term other courses here means the B.S. curriculum in the training school for nurses, which has 16 students. The summer session figures of 7,849 are made up, deducting duplicates, of 4,096 at Berkeley, 2,503 at Los Angeles, and 1,886 intersession students at Berkeley. There are 12,334 extension students, of whom 1,410 take work by correspondence. The full total of all types of students reached by the University of California is 35,111.

In Table I the figures of the University of Chicago recorded under the term "other courses" include 148 undergraduates in social science administration and 24 in the Graduate School of Library Science. The totals for this fall are somewhat below the 1929 registration.

The University of Cincinnati figures reported for engineering in Table I include students in commerce. The 364 students listed under art are taking applied arts. Of the total of 276 indicated under other courses, 158 are in household administration and 118 are in nursing and health. The full-time enrolment is given as 352 less than on November 1, 1929; the grand-total enrolment is 563 greater.

The grand total enrolment of Columbia University is this year 33,144, or 223 less than at the same date in 1929. Six more than a year ago is the 1930 total of undergraduates, graduates and professional students, which is reported as 14,958. The undergraduate total of 3,450 takes in 1,826 in Columbia College (of whom 447 are new freshmen); 1,007 in Barnard College; 308 in Seth Low Junior College in Brooklyn;

195 university undergraduates; and 114 in Saint Stephen's College at Annandale. The Teachers College enrolment of 5,537 is 150 larger than last year; there are 3,671 in education as compared with 3,720 in 1929, and 1,866 in practical arts as compared with 1,667 in 1929. With the 1930 summer session registration of 13,887, with 7,214 part-time students in university classes, and with approximately 13,000 non-residents taking home study, extramural and special courses, the "super grand total" of all students receiving instruction of Columbia University is more than 46,000.

The Cornell totals this fall are larger than last, both for full-time enrolment (5,725 as compared with 5,500) and for grand total enrolment (8,110 as compared with 7,915). In Table I the figure of 1,115 for engineering includes 125 in chemistry. The total for other courses is made up of 402 students in home economics, 172 in the hotel management course, and 161 in veterinary medicine.

Harvard has a few more students in the college, in the non-professional graduate courses, in the graduate school of business administration and in other departments. The total is 8,446 as compared with 8,377 last year. In Table I the figures 139 for other courses take in 52 in landscape architecture, 44 special students, 30 in the school of public health, 7 in city planning, and 6 in the Bussey Institution.

About three hundred more undergraduates than in 1929 are enrolled at the University of Illinois this year. In the liberal arts departments there are 18 more men and 225 fewer women. Other departments showing increased numbers are engineering (including 191 in chemistry), medicine, graduate school, agriculture, architecture, commerce, education, music and pharmacy.

The grand total of students at Indiana University is somewhat more and the full-time enrolment a trifle less than in 1929. The extension total this year is 800 more than last. In Table I, 187 students in nurses training are recorded under other courses.

In full-time numbers the State University of Iowa is 246 below last year. There was, however, a larger summer school attendance last summer than in 1929, and there is an increase of 218 part-time students; the 860 part-time students are divided as follows: Graduate study, 335; liberal arts, 205; pharmacy, 11; law, 9; commerce, 9; engineering, 7; music, 4. In Table I the 306 listed as taking other courses are students in nursing.

Slight increases in the liberal arts and engineering enrolments at Johns Hopkins account for the increase of 110 over 1929 in this year's full-time total of 1,578. The Table I figures for engineering include 285 undergraduates in engineering, 50 undergraduates in chemistry, and 24 graduate students in engineering. There are 97 in the school of hygiene and public health recorded under other sources in this table.

There are a few less full-time students at the University of Kansas this year than last. Because of the 1930 summer increase over 1929, the grand total for this year is 106 greater than in 1929. The total of 263 given under music in Table I includes students in music and in the fine arts. There are 83 students in nursing, recorded under other courses in the table.

A decrease of 257 is observable in the report of 9,431 full-time students at the University of Michigan. There are 297 fewer college men and 115 fewer college women. The graduate students, on the other hand, are listed as 1,160 as compared with 955 a year ago. Students taking courses in art and in journalism are included in the college columns of Table I. The term "other courses" here means nursing. In addition to the teaching staff of 833, there are 58 additional members of the summer session staff. The 1930 sum-

mer session had an attendance of 3,995 as compared with 3,673 in 1929.

The total of 12,490 students at the University of Minnesota is made up of 7,821 men and 4,669 women, not differentiated as to full-time and part-time. The engineering total of 2,057 in Table I includes 168 taking "mines and metallurgy." Under other courses there are included 509 students in nursing, 507 in home economics, 61 in dental hygiene, 31 unassigned and 9 "university college."

The University of Missouri has 187 more full-time students than a year ago and 410 more in the grand total. The figures under art in Table I include 113 students in both art and music.

Decreases in the number of college women and in the education enrolment largely account for the lower full-time total at the University of Nebraska this year—5,795 as compared with 6,038 in 1929. The summer session attendance of 1930 was smaller also. Figures of 579 in agriculture in Table I include students in home economics. The other-courses total of 314 is classified as 197 in "fine arts, dramatics, and undesignated," and 117 in nursing.

The full-time enrolment of 6,184 at Northwestern is 380 larger than in 1929 and the grand total of 14,152 is 594 larger. Gains in graduate and in education students are notable. In Table I the 282 listed under other courses are students in speech. The teaching staff at Northwestern has 371 full-time and 255 part-time members.

At Ohio State, both full-time and grand total enrolments are higher this year than last, the increases being 152 and 551 respectively. Forestry students are included in the agriculture figures of 882 in Table I; and students in journalism are counted in the figures of 1,989 for commerce and administration. The total of 338 in the column "other courses" is made up of 145 in veterinary medicine, 98 in the school of nursing, 57 in arts-education, and 38 in applied optics. The 1930 summer school enrolment of 4,487 was 616 larger than in 1929.

The full-time enrolment of 7,236 at the University of Pennsylvania is 133 more than last year. There is a considerable increase in extension numbers, with 1,581 taking courses for teachers and 849 the course in accounts and finance. In Table I the total of 339 for engineering includes 58 in chemical engineering and 29 in chemistry. Of the 663 recorded for medicine, 168 are in the Graduate School of Medicine. The figures for architecture include 21 in landscape architecture. The total for other courses is made up of 256 in nurses training schools, 111 in veterinary medicine, and 37 in oral hygiene.

The University of Pittsburgh totals, which are higher for full-time enrolment than in 1929, embrace the students "on campus" at Pittsburgh and "off campus" at the university junior colleges in other cities. In Table I the figures for engineering include students in mines; chemistry students are included in the report for the college of liberal arts and sciences, as are also students taking journalism. Under other courses are counted 15 graduate students in "retail training."

The Princeton enrolment of 2,251 undergraduates is slightly above that of 1929, but a decrease in the graduate school makes the total of 2,445 somewhat under last year's aggregate.

The Stanford enrolment this year is a trifle larger than last. In Table I, the total of 326 listed for engineering includes 25 students in chemistry.

The report of Syracuse University reveals slightly increased enrolments for 1930 over 1929; specifically, 64 more full-time students and 62 more in the grand total. Students in music are included in the art figures of 487 in Table I, which

here means the fine arts. The aggregate for other courses in this table takes in 153 in home economics, 147 in the school of nursing, 137 in the library school, and 102 in the school of speech.

Small gains in nearly all departments at the University of Texas produce a total of 152 students more than last year in the full-time enrolment of 5,970. The grand total is 9,203 as compared with 8,523 in 1929. The figures of 1,349 in Table I for engineering include 485 in "mines and metallurgy." There are 108 students in nursing who are entered under the term "other courses" in this table.

The Tulane University of Louisiana reports 146 more full-time students than last year. The total of 274 for engineering in Table I embraces 63 chemistry students. The figures for medicine include 468 in the medical school and approximately 110 in the graduate school of medicine. Other courses here means 23 students in social work of professional standard. The 752 part-time students are classified as follows: 459 in night courses in the college of commerce; 285 in courses for teachers; and 8 in part-time social work.

Almost without exception the various schools and departments of the University of Washington have small increases over 1929 and the full-time total of 7,368 is consequently 110 larger and the grand total of 10,197 is 289 larger than last year. In Table I the engineering total of 972 includes 55 students in the college of mines. The total for other courses is made up as follows: College of science, 1,223; arts not included in architecture, art or music, 73; library school, 46.

At the University of Virginia the full-time registration this fall of 2,411 is 53 more than in 1929. Due to a slightly smaller summer school attendance (2,446 as compared with 2,596 in 1929), the grand total is 47 less this year. The engineering total of Table I includes 36 chemistry students. The report of the registrar states that, in addition to the enrolment of the table, "there are, in the Hospital Nurses Training School, 130."

Small increases in various departments at Washington University, St. Louis, account for a gain over last year of 47 in the full-time attendance of 3,445 and a gain of 40 in the grand total. The total of 289 in the column "other courses" in Table I embraces 254 in the training school for nurses and 34 in social work.

Practically the same as last year is the enrolment this fall at Western Reserve University. The gain of 83 in full-time students is in the men's enrolment in liberal arts and in several of the professional schools. In Table I other courses takes in 244 in the school of applied social sciences, 230 in nursing, and 121 in library science.

The University of Wisconsin figures this year are slightly smaller than last. The summer session attendance was likewise a little smaller. In Table I, the total of 1,284 listed for engineering includes 198 students in chemistry. The 630 given under education are taking the school of education course, art education, industrial education and physical education. Under other courses are included 74 students in graduate nursing and 38 in the library course.

In considering the Yale enrolments in Table I of 1,680 for the college and of 645 in engineering (the Sheffield Scientific School), it should be stated that there are 849 additional undergraduates in the separate unit known as freshman year who will later go into Yale College or "Sheff." The total of 775 reported in the non-professional graduate column includes 117 in the Graduate School of Education. The other-course total of 1,060 includes 849 men in the freshman year, 109 students in drama

and 102 in nursing. The summer-session attendance of 60 was of students and practitioners of law who came for special study. The full-time enrolment at Yale this fall is a little larger and the grand-total enrolment is a little smaller than in 1929. In the teaching-staff figures there are 492 full-time and 175 part-time members.

EDUCATIONAL EVENTS

EDUCATIONAL TOURS TO EUROPE

The International Institute of Teachers College, Columbia University, cooperating with the *Zentralinstitut für Erziehung und Unterricht* in Germany, the Pedagogical Department of the Second University of Moscow in Russia, and the Ministry of Public Instruction in France, is planning a series of study tours for American schoolmen and educators in the summer of 1931. The tours will be to Russia beginning in Moscow on June 15 and continuing for six weeks; to Germany beginning in Bremen on June 22 and continuing for six weeks; and to France beginning about June 1 and continuing for six weeks. Each one is described below in sufficient detail.

These tours are organized under the auspices of the respective educational authorities in Germany, Russia, France and England. The leadership is divided between Teachers College, Columbia University, and the educational authority in the various countries.

The purpose of these trips is to provide American teachers with direct insight into the life and organization of foreign school systems. The tours are so organized, however, that liberal opportunity is afforded members of the groups for intimate contact with many other phases of life and culture in foreign countries, such as music, art, drama, industry, agriculture, commerce and politics. Very definite provision is made for these phases of culture of the countries visited.

Under the guidance of foreign educational leaders, these tours offer most unusual opportunities to see schools in operation. This expert guidance ought to make the tours attractive since it is not often that such opportunities are made available to foreign visitors.

University credit may be granted to participants in these tours, provided the requirements for credit are met. Details regarding these requirements are given in the Columbia University "Summer Session Bulletin of Information."

Steamship reservations must be made through Dr. Thomas Alexander, International Institute, Teachers College, Columbia University. The expense for sea travel will depend upon the type of facility used by the traveler. The rates for cabin class are ordinarily $320, New York to Bremen or Hamburg and return; tourist third is approximately $215 for the round trip. Ordinarily a small deposit is sent to the steamship company to reserve the ticket; the balance is paid a month before sailing. The total necessary expenses of the French and German tours are placed at $600 to $700, of the Russian tour at $1,000.

INTER-AMERICAN INSTITUTE OF INTELLECTUAL COOPERATION

The Secretary of State announced on December 3 receipt of the acceptance of fifty-five individuals to membership on the National Council for Intellectual Cooperation. This group, of which the Honorable Ray Lyman Wilbur, Secretary of the Interior, is chairman, and to which other names may be added, constitutes the representation of the United States in the Inter-American Institute of Intellectual Cooperation which is now in process of formation. It is the first of the groups actively to be constituted.

Provision for the creation of the Inter-American Institute of Intellectual Cooperation was made at the meeting of the Sixth International Conference of American States which was held in Havana in 1928. The second step in its development took place when an Inter-American Congress of Deans, Rectors and Educators in general met in Havana last February. It wrote by-laws for the international body.

The purpose of the Inter-American Institute of Intellectual Cooperation is to mobilize the intelligence and the culture of the three Americas, by organizing, in each of the twenty-one republics, a national council of intellectual cooperation. These councils are to be made up of

members from organizations and bodies dealing with the various phases of the intellectual thought and life of each of the republics creating them. They will promote such policies as the interchange of students and research workers, the removal of prejudiced statements from geographies and histories, ways and means of making available to all the information resources of the different countries, not overlooking the discovery of the monuments and remains of early American civilization, the establishment of museums for educational and historical exhibitions, and the publication of bulletins for the exchange of such information.

The Inter-American Central Council for Intellectual Cooperation, after the national councils are all set up, while still remaining a part of the Inter-American Institute which in turn is subject to the governing board of the Pan American Union, will meet at stated periods in Havana. Quarters will be assigned the council in the Palace of the American Institute of International Law which is being constructed in Havana by the Cuban Government. No meeting of the council can be held until the national groups are named by the 21 Pan-American republics and their organization is completed. The United States is the first to form its council. Other countries are expected promptly to follow. National meetings must be held and representatives chosen before an Inter-American conference can be called in Havana. The executive committee of the American group is preparing for an early meeting in Washington at which its future program will be determined.

RECOMMENDATIONS OF THE WHITE HOUSE CONFERENCE ON CHILDREN'S LIBRARIES

EVERY school should have a library, and every school library should be in charge of or under the supervision of a person professionally qualified to select books and to direct reading as an important part of the work of the school and of the life of the child, according to recommendations made by the Committee on Reading of the White House Conference on Child Welfare. Librarians working with children and adolescents in public and school libraries should have a minimum of a year's specialized education for their work at a library school which meets the standards set by recognized accrediting agencies.

The problem of promoting good reading among American children depends chiefly on the problem of making good reading matter accessible, according to the report.

The Public library service should be made available to the 40,000,000 people (about 15,000,000 of whom are children) now without it, through the establishment of municipal and especially of county (or other large unit) libraries.

The establishment of such libraries and the improvement of libraries now in existence, and particularly the improvement of specialized service for children, should be made possible by generous local appropriations, by state aid and by federal aid, and should be encouraged by the strengthening of state library extension agencies.

Parents should be made aware that theirs is the chief responsibility for stimulating an interest in good reading and for making books available in the home. Associations of parents should place increased emphasis on that part of their program which affects children's reading interests and should give their endorsement to all projects for the establishment and improvement of agencies which provide good reading matter for children.

All methods that stimulate children's reading and create appropriate habits of reading should be studied and used intelligently and persistently by librarians, teachers, parents and all adults interested in child education and welfare.

Scientific studies should be made by persons equipped by training and experience of the reading preferences of children, of the influence of reading on character, of the place of books, reading and libraries in the teaching process, and of the individual and social factors which affect the wise use of books by children.

The development in every child of a permanent and desirable habit of reading should be the prime objective of the teaching of reading and English literature in the schools.

ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

SOME of the most urgent problems of higher education, including academic freedom and tenure, student health and athletics, and the propaganda of public utilities corporations in relation to the teaching profession, will be discussed in open session at the annual meeting of the American Association of University Professors scheduled to convene on December 27, 28 and 29, at the Hotel Statler in Cleveland. The program is published in the current

monthly *Bulletin* of the organization which now has 10,000 members throughout the country.

Special interest not only for the academic world but for large portions of the public will center in the discussion of a proposal recently made by Professor L. L. Thurstone, of the University of Chicago, to establish a plan of discrimination against institutions which violate the accepted principles of tenure and of freedom in teaching. Of general public interest also will be the discussion of the report of the Association's Committee on Ethics regarding the Public Utilities Propaganda, prepared by Professor E. R. A. Seligman, of Columbia University, and widely reported in the press. Important recommendations concerning college athletics are expected in the report to be made by Professor J. E. Rayeroft, of Princeton University, chairman of the association's committee on student health and athletics. Other reports awaited with interest in the educational circles will be presented by the committees on systems for sabbatical years and on library service.

Among the addresses to be made by invited guests will be those on "The Aims, Methods and Results of the American Medical Association," by Professor A. C. Ivy, of Northwestern University; on "Principles of Accrediting Institutions," by President George F. Zook, of the University of Akron, and on "Current Trends in Higher Education," by President E. H. Wilkins, of Oberlin College. Addresses at the two luncheons on December 27 and 29 will be delivered by President R. E. Vinson, of Western Reserve University, and President W. E. Wickenden, of the Case School of Applied Science.

The meeting will be held in connection with the annual gathering of the American Association for the Advancement of Science, and a large representation is expected from the local chapters of the association in more than 175 higher institutions of learning. Professor W. B. Munro, the president of the association, will preside at the sessions. Professor H. W. Tyler, general secretary, will make a comprehensive report on the progress of the association during the past year. Professor Joseph Mayer will give an account of the Washington office and of the recently established appointment service for the placing of college and university teachers.

Some action may be taken by the council of the organization regarding the wholesale dismissal of more than one hundred faculty members at the state institutions in Mississippi last June.

THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE MIDDLE STATES AND MARYLAND

MORE than six hundred representatives of various institutions attended the forty-fourth annual convention of the Association of Colleges and Secondary Schools of the Middle States and Maryland held at Haddon Hall, Atlantic City, on November 28–29. The sessions were in charge of the president, Dr. James N. Rule, of the Pennsylvania State Department of Education, and of the secretary, Dr. George William McClelland, of the University of Pennsylvania. The speakers included Commissioner of Education W. John Cooper, Principal H. P. Miller, of the Atlantic City High School, and President W. C. Ketler, of Grove City College.

There were very large attendances at the conferences of the various associations which regularly have meetings along with the annual convention.

Officers of the association for 1930–31 were elected as follows:

President—President Murray Bartlett, Hobart College.

Vice-Presidents—Assistant Commissioner George M. Wiley, Albany, N. Y.; Principal Lindsey Best, Plainfield High School; Miss Eleanor Boonnell, Shipley School; President David A. Robertson, Goucher College; Headmaster William S. Pike, Baltimore Friends' School.

Treasurer—Principal Stanley R. Yarnall, Germantown Friends' School.

Secretary—Vice-provost George Wm. McClelland, University of Pennsylvania.

Executive Committee—Deputy Commissioner James N. Rule, Harrisburg, Pennsylvania; Miss Valentine Chandor, Miss Chandor's School, New York; Principal Henry P. Miller, Atlantic City High School; Registrar W. J. O'Connor, Georgetown University.

College Entrance Examination Board Representatives—Headmaster Islay F. McCormick, Albany

Academy; Headmaster Mather Abbott, Lawrenceville School; Headmaster Greville Haslam, Episcopal Academy; Headmistress Amy Kelly, Bryn Mawr School for Girls; Principal Harold A. Ferguson, Montclair High School.

Commission on Higher Institutions—Terms expiring 1931: Professor Adam Leroy Jones, Columbia University, *Chairman;* Deputy Commissioner A. G. Downing, Albany, N. Y.; Headmaster Wilson Farrand, Newark Academy; Registrar R. N. Dempster, Johns Hopkins University. Terms expiring 1932: President Frederick C. Ferry, Hamilton College; Headmaster Walter R. Marsh, St. Paul's School; Professor Arthur Greene, Princeton University; President Kerr D. MacMillan, Wells College. Terms expiring 1933: Professor George Gailey Chambers, University of Pennsylvania; Deputy Commissioner James N. Rule, Harrisburg; Dean Raymond Walters, Swarthmore College; Principal Lindsey Best, Plainfield High School.

Commission on Secondary Schools—Terms expiring 1931: Assistant Commissioner George M. Wiley, Albany, New York; Headmistress Miriam Bytel, Cathedral School of St. Mary; Principal William A. Wetzel, Trenton High School. Terms expiring 1932: Principal John H. Denbigh, Packer Collegiate Institute; Dean Radcliffe Heermance, Princeton University; Headmaster Richard M. Gummere, William Penn Charter School. Terms expiring 1933: Superintendent Ben Graham, Pittsburgh; Registrar W. J. O'Connor, Georgetown University; Professor E. D. Grizzell, University of Pennsylvania, *Chairman.*

THE UNIVERSITY OF WISCONSIN AND THE FOUNDATIONS

MR. FRED C. SHEASBY, editorial correspondent of the New York *Times,* reports a revival of an old controversy at the University of Wisconsin, owing to differences of opinion in regard to the propriety of a state university accepting endowments from private foundations. Mr. Sheasby writes in part:

> The storm develops from La Follette quarters and is over the Wisconsin regents' decision to accept research aid from the General Education Board, a Rockefeller institution. Philip F. La Follette, governor-elect, has announced that his views are the same as he expressed five years ago, namely, that the acceptance of funds from any incorporated educational endowment was incompatible with democracy.
>
> W. T. Evjue, editor of *The Capital Times,* the La Follette newspaper in Madison, has taken up the fight against Dr. Glenn Frank, president of the university, threatening to carry it to the Legislature. If things go that far Dr. Frank would be in an uncomfortable, even an embarrassing position, although so far his relationship with the La Follettes has been friendly.
>
> President Frank takes his stand with the regents, who voted permission to a group of university scientists to apply to the General Education Board for $350,000, the money to be used for a five-year study of the related problems of the chemistry of life processes and plants and animals.
>
> Supporters of the regents and President Frank maintain that the controversy does not now rest on the basis it did when Philip La Follette declared himself in 1925. Then the foundations were self-perpetuating through boards that reproduced themselves, while the foundations are now expending both from their income and principal and when the money with which they are endowed is spent their influence will end. With the change in the character of endowments, it is argued, the objections once raised against them no longer rest on valid grounds.
>
> The Legislature could vote to deprive the university of funds offered by the foundations, but unless such funds are replaced by other means the scientific activities at the university would be crippled. The Legislature could replace the funds with money raised by taxation, but that would further complicate an already difficult taxation problem.
>
> The incoming Legislature will consider a bill for a complete overhauling of the state's educational system. A legislative interim committee investigating that subject will recommend a state educational board and county educational boards as substitutes for the existing system. Such a law would abolish the university Board of Regents, the regents for the normal schools and dozens of small district boards. This same centralized administrative authority has been defeated in the past. Now there is considerably more sentiment for it.

IN MEMORY OF WILLIAM BARTON ROGERS

A BRONZE tablet of William Barton Rogers, third professor of natural philosophy at the University of Virginia, was unveiled on December 3 at that institution by the Technology Club of Virginia, composed of alumni of Massachusetts Institute of Technology resident in the state, commemorating Rogers's connection with University of Virginia and the institute.

Rogers, who was a member of the Virginia faculty from 1835 to 1853, went to Massachusetts where he founded the institute in 1859, to serve as its first president from 1865 to 1870, and again during the years 1878–81.

The dedication exercises, held in the Cobb chemical laboratory, occurred on the 126th anniversary of Rogers's birth. The tablet is installed beneath an oil painting of Rogers, done in 1881 by Miss Lelia M. Smith, daughter of the late Francis H. Smith, who was for years head of the school of physics at the University of Virginia. The painting was recently restored at the J. F. Olsson Art Gallery, Cambridge, Mass.

The tablet was presented by J. Scott Parrish, Richmond, Va., president of the Technology Club of Virginia, and accepted by President Edwin A. Alderman, who described Rogers as perhaps the most distinguished man of pure science ever connected with the life of the University of Virginia, and the only president from the South of the National Academy of Sciences. Accumulation in our institutions of lasting reminders of this kind, said Dr. Alderman, will give future generations a more vivid cultural background than we in America possess.

Dr. Samuel W. Stratton, of Boston, chairman of the board of the Institute of Technology and former president, delivered the address in which Rogers's contributions to the institute were described.

The services of Dr. Rogers at the University of Virginia were described by Dr. Llewellyn G. Hoxton, head of the school of physics at the university.

Professor Hoxton reminded his hearers that a bust of Rogers, together with his apparatus cabinet, clock and some instruments are in the physical laboratory at the university; that his name is graven upon the Geological Building and a clock from his department is now installed in the Astronomical Observatory.

EDUCATIONAL NOTES AND NEWS

A MEMORIAL service for the late Harry Burns Hutchins, president of the University of Michigan from 1910 to 1920, was held recently by the university senate. Speakers included Edwin Charles Goddard, professor of law; Shirley W. Smith, vice-president and secretary of the university; Earl D. Babst, chairman of the board of American Sugar Refining Company, and William Oxley Thompson, president-emeritus of the Ohio State University, who represented, respectively, the faculties, the administration, the alumni, and Dr. Hutchins' colleagues in the field of university administration. In concluding the ceremony, President Alexander G. Ruthven announced that the next unit of the Law Quadrangle, a classroom building, will be named Hutchins Hall in memory of Dr. Hutchins.

WITH the approval of the donors, the board of trustees of Oberlin College voted in November to name the librarianship endowment fund of $150,000 recently given the college by the Carnegie Corporation "The Azariah Smith Root Memorial given by Carnegie Corporation," in honor of Professor Azariah S. Root, who for forty years was the head of the Oberlin College Library.

THE school board of Pittsburgh, Pennsylvania, has approved a memorial tribute prepared in honor of Dr. William M. Davidson, late superintendent of schools of the city. The board referred to its special committee a suggestion that two bronze plaques be prepared in memory of Dr. Davidson, to be set up in the school administration building.

THE Phi Kappa Phi chapter at Massachusetts Agricultural College held on December 3 an assembly in commemoration of the Virgil Bimillennium, when Dr. John H. Finley, of the *New York Times*, delivered the principal address.

Dr. John Bassett Moore, formerly American member of the World Court, was awarded the medal of the Hispanic Society of America for Arts and Literature in recognition of his writings in legal history at a luncheon of the Columbia University law faculty on December 2. Dr. Moore, in accepting the medal, announced that he was writing a series of volumes on "International Adjudications," two volumes of which will appear soon. Dr. Moore was professor of international law and diplomacy at Columbia from 1891 to 1924.

DR. JAMES M. KIERAN, president of Hunter College, was made an honorary member of Nu Chapter of Phi Beta Kappa at ceremonies on December 3 at the college. Twelve undergraduates were initiated with Dr. Kieran. Dr. Ernest Reiss, president of the chapter, presided.

The School Board Journal writes that Mr. Frank G. Pickell, superintendent of schools of Montclair, N. J., was recently highly honored by the local board of education. The tribute in the form of a continuous contract, the first of its kind in the state, was presented to Mr. Pickell at the close of a seven-year period of distinguished administrative service to the city school system of Montclair. With the possession of a continuous contract, Mr. Pickell will continue to serve the school system without the formality of an annual election. Under the arrangement he will be given an initial salary of $12,500, with subsequent salaries to be determined in advance of the beginning of each successive school year. Mr. Pickell in entering upon his eighth year of successful school-administrative service in Montclair will continue to act as head of one of the most efficient and progressive school systems in the country.

MR. HOWARD CONANT, principal of Holyoke High School, was elected president of the New England Association of Colleges and Secondary Schools, at the closing session of its forty-fifth annual meeting. The other officers elected are: *First Vice-president,* President John A. Cousens, Tufts College; *Second Vice-president,* William E. Wing, principal of Deering High, Portland, Maine; *Secretary-treasurer,* Professor George S. Miller, Tufts College; *Secretary-emeritus,* Professor Walter B. Jacobs, Brown University; *Executive committee,* the active officers and Professor Otis E. Randall, Brown University; Frank L. Boyden, head master, Deerfield; Miss Frances L. Knapp, Wellesley College; Miss Climena L. Judd, head of Northampton School for Girls, and Dr. Ernest W. Butterfield, commissioner of education in Connecticut. Among those taking part in the program were Dr. Carl C. Brigham, professor of psychology, Princeton University; Dr. William M. Lewis, president of Lafayette College, and Dr. John W. Withers, dean of the School of Education of New York University.

DR. FOSTER M. COFFIN, of Cornell University, was elected president of the Association of College and University Unions at a meeting held during the first week in December at Brown University.

WILLIAM S. HOFFMAN, registrar at the Pennsylvania State College, was elected president of the Registrars Association of the Middle States and Maryland when the subdivision of the American Collegiate Registrars was organized recently. Mr. Hoffman is also editor of the bulletin for the national association.

THE Illinois Association of Deans of Women has elected O. Lillian Barton, of the Illinois State Normal School, president, and has re-elected Miss Cornelia Pierce, of the Mount Vernon Township High School, secretary.

MR. JAMES R. SHEFFIELD, U. S. ambassador to Mexico from 1924 to 1927 and a trustee of Barnard College for many years, was named chairman at a recent meeting of the board of trustees.

HENRY JOSEPH HASKELL, editor of the *Kansas City Star,* has become a member of the board of trustees of Oberlin College, from which he graduated in 1896. Mr. Haskell succeeds the late Theodore E. Burton. The Reverend Dr. Henry M. Tenney, who has been trustee for forty-five years and is now ninety years old, has tendered his resignation.

MR. LUTHER A. NICHOLS, assistant comptroller of the University of California for the past three years, has been appointed comptroller, succeeding Dr. Robert G. Sproul, now president. At the same time Mr. Robert M. Underhill, assistant comptroller stationed at the University of California at Los Angeles, was appointed secretary to the regents. He also succeeds Dr. Sproul, who had held both positions up to the time he was made president. Mr. Deming G. Maclise, assistant comptroller at the branch of the College of Agriculture at Davis, has been appointed to Mr. Underhill's post at Los Angeles.

DR. HENRY B. BIGELOW, research curator of the museum of comparative zoology at Harvard University and director of the new Oceanographic Institute at Woods Hole, has been promoted to a professorship of zoology at the university.

MR. ROSSITER HOWARD, assistant director of the Cleveland Museum of Art since 1925, has been appointed chief of the division of education in the Pennsylvania Museum of Art. Mr. Howard's appointment is made possible by grants of funds to the Pennsylvania Museum of Art from the Carnegie Corporation of New York and from the General Education Board. He takes charge of the public educational program of the museum outlined and inaugurated in 1928. It includes the several series of endowed lectures then established, the weekly public lectures and gallery talks by Stewart Dick, and the visits of school classes organized by the Board of Education.

DR. GEORGE W. CHADWICK, director of the New England Conservatory of Music for thirty-seven years, has presented his resignation to take effect on January 1.

DR. C. S. MYERS, the director of the British National Institute of Industrial Psychology since its inception, has asked to be released from the duties of directorship, and has been appointed principal, in order that he may devote his time to the institute's research and educational activities. Dr. G. H. Miles, who has been assistant director for several years, has been appointed director, and will take charge of the practical activities.

MISS RUTH MUSKRAT, a Cherokee Indian of Oklahoma and a graduate of Mount Holyoke College in 1925, has been appointed guidance and placement officer by the Bureau of Indian Affairs. The position was recently established as a part of a practical program now being inaugurated by the bureau, directed by Charles J. Rhoads, with Dr. W. Carson Ryan at the head of the educational department.

DR. JOHN A. COUSENS, president of Tufts College, recently addressed the students of the University of New Hampshire at the regular weekly convocation exercises.

DR. FRANCIS P. MAGOUN, assistant professor of English at Harvard University, has been appointed exchange professor in France for the first half of 1931–32. Dr. Adolph Goldschmidt, who had been appointed for the first half of the current academic year as Kuno Francke professor of German art and culture, will remain at Harvard throughout the second half year.

DR. HARRY A. GARFIELD, president of Williams College and chairman of the Institute of Politics, sailed from New York on December 13 for a six-weeks' visit to Europe. Dr. Garfield will interview prospective speakers for the conference to be held in August, 1931.

DR. EDGAR W. KNIGHT, professor of education at the University of North Carolina, plans to spend six or seven months abroad. He will act as educational adviser in China to a staff of eight men representing the Institute for Research in Religion and Social Science. It is proposed to make an inspection of schools, colleges, hospitals and agricultural experiment stations supported by American effort. Dr. Knight's work will be concerned with secondary schools and colleges, and he will be in Japan for some time to inspect junior colleges of that country. Besides the staff commissioned to go to China, the institute has sent a staff to India and will send another to Japan.

LEAVE of absence has been granted to Dr. Brash, dean of the faculty of medicine of the University of Birmingham, and Professors Haswell Wilson and Daly, to visit the United States as guests of the Rockefeller Foundation to inspect the buildings and equipment of medical schools in view of the building and development of the new medical school of the University of Birmingham.

THE Reverend Dr. William Edwards Huntington, president emeritus of Boston University, died on December 6, at the age of eighty-six years.

SIR OTTO BEIT died in London on December 7 at the age of sixty-five years. He was one of the original trustees of the Cecil Rhodes endowment for scholarships and for some years had been president. He was also a member of the governing body of the Imperial College of Science and Technology. Sir Otto founded the Beit Memorial Fellowship for Medical Research, and in November, 1928, he gave $250,000 to the King Edward Hospital Fund to buy radium.

STATE and county rural school supervisors of

thirteen states have been invited by Dr. William John Cooper, U. S. Commissioner of Education, to attend a conference on the supervision of rural schools in the Southern states to be held at Hot Springs, Arkansas, December 15 and 16. The conference is the fifth of its kind sponsored by the Office of Education for the Southern states, and will be attended by educators interested in rural schools from Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. Among those who will participate in the program are: Miss Hattie S. Parrott, State Department of Education, Raleigh, N. C.; Miss Marjorie Hardy, Germantown, Pa., formerly of the University of Chicago; Burl Bryant, State Department of Education, Austin, Texas; Mrs. Katherine M. Cook, Miss Annie Reynolds, and Miss Elise H. Martens, U. S. Office of Education; G. B. Wilcox, State A. and M. College of Texas; Norman Frost, George Peabody College for Teachers; B. R. Showalter, Alabama Polytechnic Institute; A. E. Riling, State Department of Public Instruction, Oklahoma; Professor E. B. Robert, State Normal School, Natchitoches, Louisiana; Prof. Edwin Reeder and Dr. Fannie Dunn, Teachers College, Columbia University, and Anne Whitney, American Child Health Association.

FIFTY publishers and editors of high school periodicals from New York, Pennsylvania, New Jersey and Ohio were guests on November 7 and 8 of the Cornell Chapter of Sigma Delta Chi, professional journalistic fraternity. The meeting was the tenth annual conference of the Eastern Interscholastic Publications Association. Speakers at the sessions included Thomas D. Kelly, Spokane, Wash., chapter president; Robert P. Sibley, assistant dean of the College of Arts and Sciences; Professor Othon G. Guerlac, Harold Flack, executive secretary of the Cornellian Council; Don A. Johnson, director of the Empire State School of Printing at Ithaca; Warren Sailor, editor of *The Alumni News*, and Louis C. Boochever, director of public information.

A PERSONNEL and placement bureau has been established for graduates of the School of Civil Engineering of Cornell University, under the direction of Leonard C. Urquhart, professor in charge of structural engineering and member of the committee in charge of the school. Professor Urquhart plans to extend the interview system to juniors and eventually to underclassmen. Such a bureau has been maintained in the School of Mechanical Engineering for several years under the direction of Professor John R. Bangs, Jr., '21.

DISCUSSION

VIRGIL BIMILLENNIUM CELEBRATED PREMATURELY

FOR the past five years SCHOOL AND SOCIETY has been publishing lists which I have prepared of events in the history of education for which the current year was a multicentennial year. Occasionally events have been included in these lists which occurred prior to the beginning of the Christian era. For example, in the 1930 list, the death of Epicurus was listed, which occurred in 270 B. C.[1] I have also been furnishing similar lists of mathematical centennial dates which have been published in the *American Mathematical Monthly* annually since 1925. A recent writer in that periodical points out that I am in error by one year with reference to all dates B. C.[2] He is entirely right and I am very glad to be corrected in the matter.

That I am not alone in the error, however, is indicated by the surprising fact that the whole world has been engaged for months in a notable series of celebrations presumably commemorating the bimillennium of Virgil's birth, when as a matter of fact the two-thousandth anniversary of the birth of the distinguished Latin poet will not occur until 1931 instead of 1930! This is due to the fact that the first year of the Christian era was numbered *one*, not *zero*, while the first year of every century since that time has begun with "00."

[1] W. C. Eells, "1930 As a Centennial Year in the History of Education," SCHOOL AND SOCIETY, 31: 153, Feb. 1, 1930.

[2] Eward S. Smith, "A Letter to the Editor," *American Mathematical Monthly*, 37: 371–72, August-September, 1930.

Virgil was born October 15, 70 B. C. The passage of time since that event can be easily indicated as follows:

Oct. 15, 70 B. C. – Oct. 15, 1 B. C.	69	years
Oct. 15, 1 B. C. – Oct. 15, 1 A. D.	1	"
Oct. 15, 1 A. D. – Oct. 15, 30 A. D.	29	"
	99	"
Oct. 15, 30 A. D. – Oct. 15, 1930 A. D.	1900	"
	1999	years

Thus the entire world has been one entire year ahead of the correct date, although such premature commemoration has probably not greatly disturbed the ashes of the author of the Aeneid, nor seriously harmed the rest of the world. Since the two-thousandth anniversary of his birth does not really occur until October 15, 1931, however, it will be quite legitimate to continue commemorative exercises another year or even to repeat them on a still more extensive scale!

WALTER CROSBY EELLS
SCHOOL OF EDUCATION,
STANFORD UNIVERSITY

RESEARCH IN THE PAYMENT OF SCHOOL EXECUTIVES[1]

THE word research has, unhappily for those who love the classics, been changed in meaning by many scholars from its etymological significance. In undertaking a study for publication I would fain revert to the original meaning and search again in well-worked mines for overlooked or mistaken nuggets of wisdom; but it appears to be the fashion now to find some area that has not been explored and there to sink a shaft for knowledge. By native ingenuity and industry I was able to find such an area, and that I have worked it well my readers may judge.

The fortunate problem to which I decided to turn my faculties is this: In what form do school executives receive their remuneration? It was in the beginning assumed that there are school executives and, despite disquieting rumors, that they do receive remuneration. These assumptions were fully borne out as the study progressed—the first being admitted by superintendents and principals in cities of 10,552 and over in population, and the latter being verified by interviews with a sufficient number of treasurers.

These assumptions having been proved to be true, the problem took on an increased importance. At first I planned to visit a representative number of executives and to shadow each one until I found him in the act of receiving his periodical pay. But authorities with whom I consulted assured me that this would be supererogatory. My next plan was to ask a large number of school executives to submit the periodical instalments of their salaries for the purposes of this study. This plan had to be abandoned when the first two to whom I applied refused to cooperate in as friendly a fashion as I had hoped. One imputed to me unreasonable motives, and the other offensively asked what power microscope I intended to use.

But I was not to be thwarted. There remained a splendid, though often used instrument—the questionnaire. And that I adopted! The Rothschild Foundation for the Improvement of Teaching by Inducing Professors to Absent Themselves for Travel replied to my request for financial aid by saying that presidents are so anxious for their professors to go on long journeys that their funds are allocated for a decade to come. I could not wait. So I turned to the manufacturer of a low-priced automobile much used by pedagogues and found him very generous, *providing* I would not use his name. To this modest benefactor I hereby acknowledge my personal gratitude and the thanks of the scientific world for a subsidy of $62.53, paid in four weekly instalments.

The questionnaire was prepared in a most careful manner, all suggestions made by the masters[2] being followed with one exception: it

[1] This valued contribution was accompanied by the following letter:

Sir: The President of the institution with which I have the honour to be associated is so insistent on research by members of his staff that I entered the field. Having mastered the technique by studying technical journals of education, I submit my maiden effort. Judged by the criteria of diligence, accuracy, and clarity, it is (*me iudice*) an important p'ece of work. If it is published, it should do much to forward my ambitions for a full professorship. Q. H. F.

[2] *Vid.* Work, E. Z., "The Questionnaire as a Substitute for Cerebration," pp. 312–347.

was printed in blue ink instead of green. In size it was 8¼ x 10 5/16, and after printing was folded twice for insertion in a stamped commercial envelope No. 6. Another stamped and self-addressed envelope (No. 5) was enclosed to facilitate reply. The questionnaire was long, for I cannily planned to secure by one raid enough data to supply materials for several contributions to educational journals. That I may not be forestalled in publication, I refrain from reproducing all the questions at this time. A large number of questionnaires were sent out; but to insure a fair sampling they were deposited in six different mailboxes at different hours of the day. One questionnaire was returned because of insufficient address; of the others 03.37 per cent. were returned. For the sake of accuracy it should be recorded that they were delivered to me or to my wife Agrippina in person by our postman, who in age is 37 ± 4.7 years.

Only one who has undertaken such a piece of research as this can realize the meticulous care with which it was necessary to interpret and record the results. I am especially proud of my interpretations, for had they not been as they were the results would have proved altogether different. To my wife Agrippina, née Tully, I am indebted for invaluable aid in recording, checking and double checking the figures. Without her help this study could not have been made.

Now for the results. Careful reading of Table I will show that the majority (59.49 per cent.) of school executives receive monthly payments of their salaries; a smaller number (36.71 per cent.) receive ten annual payments; and the remainder (3.78 per cent.) do not receive any at all.

TABLE I

SCHOOL EXECUTIVES RECEIVING REMUNERATION

	Number	Per cent.
Monthly	47	59.49
Ten times a year	29	36.71
Not at all	3	3.78
Total	79	99.98

These data, especially the percentages, reveal an alarming variation in practice. The difference in percentages between those receiving their remuneration monthly and those receiving it only ten times a year is 22.78. The significance of this difference was found by the formula[3]

$$\triangle = 1 - \sqrt[n]{\frac{\sigma_1}{\text{P.E.}_2}} \times \Sigma \sqrt[d]{\frac{\text{P.E.}_1}{\sigma_2}}$$

It is 3.7647! This conclusively proves the contention that a considerable number of school executives are underpaid. The three who reported no salary payments may be neglected, for it is obvious that they have already been by their employing communities.

A second phase of this research concerns the form of payments made. From Table II it will be seen that of the 76 reporting, 15 (19.74 per cent.) are paid by warrants drawn on the city treasurer; 56 (73.68 per cent.) are paid by checks; and six report that they are paid by cash. As the total is larger than the entire number reporting, it must be inferred that at least one executive supplements his salary by cash from the petty fund.

TABLE II

MANNER OF PAYMENT

	Number	Per cent.
Warrants	15	19.74
Checks	56	73.68
Cash	6	7.89
Totals	77	101.31

A third phase of this research concerns the physical size, shape, color and weight of the paper on which the warrants and the checks are printed. Copious data have been gathered on these details, but publication is deferred until cooperation, which is being sought, can be secured with an expert in esthetics.

QUINTUS H. FLACCUS
THE NATIONAL UNIVERSITY OF EDUCATIONAL RESEARCH

[3] See Spearman S. Kelly, "Educational Statistics for Beginners," in *Biometrika* CC, page 978.

SPECIAL CORRESPONDENCE

INDEPENDENT WORK FOR FRESHMEN

TOWARD the end of the first semester of last year I was visited by a committee of freshman engineers who came with the request that eight of their number be allowed to carry trigonometry in a special class meeting only two times a week instead of the five of the regular class. These men said that the students interested in this proposal were all making A's in their college algebra, and they felt that they were wasting time in the regular class for the reason that after having prepared their assigned lesson they were compelled to sit through the recitation and listen to the explanation of a lot of material they had already mastered. In a special class such as they proposed they would escape the ennui incident to the "twice told tale" and also have an opportunity to learn more of the subject.

Of course we were delighted with this unusual request, coming as it did without any suggestion from members of the faculty, so far as I know. We arranged for the group of eight to meet with Professor Davis two days a week. Every two weeks they returned to one of the regular five-hour sections for the usual test. Their final grades were the result of these regular tests. In these two periods each week they were given some guidance and drill, their note-books were inspected and discussions were conducted on supplementary material that had been suggested by the students or by Professor Davis. Additional conferences were held with the students upon their request. Such topics as the following were looked up in the library and reported upon: The history of trigonometry, groups of functions and arc-functions, alternative proofs for functions of sums of angles, graphical multiplication and division of complex numbers, trisection of an angle and duplication of the cube, criteria for constructibility, the number system, expansion of sin x and cos x, e^{ix}.

At the end of the semester six of the students received A's, and two B's. Professor Davis states that he was "much pleased with results. We concluded that some, perhaps all, would have learned the text probably better under full-time instruction but that the class had on the whole benefited much by the experiment in that their course had been broadened and they had learned more fully to do their own thinking."

That the students consider the venture successful is indicated by the request that they be allowed to carry their course in analytics in the same way. I think it is worth while to quote the letter which I received from one of them in May:

DEAR DEAN BOYD:

The special trigonometry class which you permitted us to attend is nearly ended, and we would like permission to continue our studies in analytical geometry in the same manner. I should imagine that the chief question to rise in your mind is whether the class this semester has been successful. I am going to tell you why I believe it has been.

Probably the chief advantage of such work is the training it gives the student. It has helped develop our ability to work without the necessity of definite assignments, and the tenacity to see a solution through without the explanations of the instructor. Also, we have covered more material and inquired more deeply into the subject-matter covered in the text. In addition, each of us has a knowledge of the history of trigonometry and the men who advanced this branch of mathematics, a clear conception of the formation of the number system with the logical relation between the real and imaginary numbers, and a knowledge of series expansions with their relation to the trigonometric functions which is beyond the scope of our text. We also believe that next semester even more can be accomplished with the experience we have gained, for it will aid us in more efficiently handling the material gained.

The students interested in the formation of the class are: James F. Frankel, James E. Scholl, K. C. McCarth, R. L. Newcomb, John M. Kane. While there are fewer candidates than last semester, the decrease is partially due to some members not having analytical geometry on their schedules. I also believe that a sufficient number would be interested were they informed of the presence of such a class.

I think that the past class has been a decided success, and I assure you the one next year would be even more helpful to us and thus most satisfactory to you.

Sincerely,

JOHN M. KANE

Isn't that refreshing to the student of education and to the tired professor who sometimes in his exasperation is tempted to say, "There's

nobody so dumb as a dumb engineer!" We will of course be happy to accommodate the men and carry them along through analytics in independent work. We also plan to invite some of our arts students to join the class.

Could we have handled the entire "A" section in the same way? We do not think so. The mechanical difficulty of sectioning has been too great. We have not been entirely successful in our sectioning of freshmen on the basis of tests during "freshman week." We have not been able to establish a thoroughly genuine "A" section because in order to equalize sections we have been compelled to leave "B"-section students in the section with the "A's." The same situation has obtained in the case of the "C" sections. There have been great variations of ability among even the twenty-five members of the "A" section, and greater variations among those assigned to the "C" section. Perhaps there should be two "B" sections and two or three "C" sections to supplement one "A" section.

Our experience with sectioning in mathematics at the University of Kentucky has thus developed a five-section system, one section for the "AA's," doing "independent work" as described above, the usual "A," "B" and "C" sections and a "D" section. Into this last section we are putting those freshmen who appear from the tests unable to carry even the "C" section successfully. Here for a semester we drill them on fundamentals of arithmetic, algebra and geometry, without credit, hoping thereby to save some from the failure that seemed to be certain.

Perhaps then the independent work for our brightest freshmen is the natural development at the top balancing the extension of the "A," "B" and "C" sections downward into the no-credit "D" section, and bringing our sectioning into agreement with the division of the marking scale most generally used in colleges. To say the least, the symmetry is pleasing.

PAUL P. BOYD
UNIVERSITY OF KENTUCKY

THE ALUMNI UNIVERSITY

DURING the past few years there has been a decided tendency on the part of our universities to provide opportunities for continued study on the part of their alumni. Lafayette, Beloit, Wellesley and Michigan have all made some effort to provide work of this nature, and the response from the alumni has been such as to indicate a keen appreciation on their part of the opportunities provided.

With this general idea in mind the school of education of the University of Michigan held a series of conferences for graduate students during the summer of 1930. The main theme of these conferences was "Trends in Education." It was believed that a discussion of the trends in the various fields of education by individuals who were specialists in them would enable the busy school administrator to acquaint himself with the most modern thought in each field in a relatively brief period of time.

Ninety-six individuals, from eight different states, attended in response to a special invitation which was sent out to all alumni. Thirty-seven were superintendents, twenty-three were principals, and fourteen were teachers.

Different members of the faculty discussed the modern trends in elementary school supervision and instruction, in the elementary school curriculum, in the supervision of secondary school subjects, in the psychology of adolescence, in the grading of students, in the study of child development, in the secondary school curriculum, in school administration, in vocational guidance, in the guidance of college students, in extra-curricular activities, in the junior high school and in individualized instruction.

The discussions that followed the presentation of the various topics indicated a keen interest on the part of the members of the conferences in the modern developments in the field of education.

As a result of the meetings numerous requests have been received by the administration that the conferences be held annually, on the grounds that they serve as a medium through which those who have gone out into the field may keep themselves informed on modern thought on education. In response to these requests the dean is now making plans to offer another program during the summer session of 1931. Details of this program will be placed in the hands of the alumni as soon as it has been completed.

THOMAS DIAMOND

QUOTATIONS

CHARACTER EDUCATION[1]

SCHOOLS throughout the nation are probably more alive to the problem of character education to-day than they have been at any time in the past. Local and national inquiries concerning the prevalence of crime, the general belief of society that education constitutes the most effective means of combatting crime, and the many improvements which have taken place in the art and science of education have combined to focus the attention of the public upon the character development as the crowning purpose of a public school system. The specific aims in education may be numerous; but the development of character is the culminating end which includes all others. For this reason it is not customary to provide a special course in moral training; instead, all courses lead to this end. Character becomes not a by-product or an incident to other phases of education but a culminating goal to which other aims contribute.

Character education and training for good citizenship are definite aims throughout the St. Louis school system. The intangibility of the means to accomplish the desired results necessarily makes it difficult to outline in a specific way the methods that are used to accomplish them, especially since the indirect, as well as the direct influence of each teacher is a factor that can not be accurately measured. The fact that purposeful methods are used, however, is evidenced in the replies to questionnaires sent out by the character education commission of the Department of Superintendence of the National Education Association charged with the preparation of the 1932 Year-Book.

From the response made to these questions in St. Louis, it appears that the principals, on the whole, have provided very definite ways and means in the school organization to secure student leadership and cooperation. Self-governing bodies, consisting of representatives from each room or group, consider certain problems relating to the conduct and the regulations of the school, thus affording opportunity for citizenship training not only for the members of the governing bodies themselves, but for all students who participate in the election of representatives. Elections are conducted in the manner followed in adult life for the election of governmental officers. Meetings are held in accordance with parliamentary procedure. In addition, there are, throughout the school, various clubs and activities which permit each child to be a vital part of some definite program. Examples of such clubs are: Citizenship, English, School Newspaper, Health, Thrift and Safety Clubs.

In addition to the self-governing bodies and room organizations and committees the schools foster extra-curricular activities which promote a broadening influence, and which, at the same time, have a marked character-building value. Included among such activities are the Dramatic Clubs, Orchestra Clubs, Reading Clubs, Boy Scouts, Girl Scouts, Glee Clubs, Drum Corps, Aviation Clubs, Home Nursing Clubs, and numerous others which develop as the need arises.

Beside organizations purposefully provided to foster pupil participation in the school government, regular class work is consciously directed towards the development of desirable character traits. One principal calls attention, for example, to the fact that "a high type of socialized recitation is used to foster initiative, judgment and similar qualities." Another principal emphasizes the subject-matter found in various courses, notably in social science. He says: "A proper interpretation of much of our curriculum involves ethical considerations. Social science is full of them. The characters of history, the study of great movements, geography as a means to historical understanding, and reading offer content containing material for direct instruction in ethical character." Two principals reporting indicate that pupils are rated on character traits. These traits include such qualities as industry, cooperation, courtesy, reliability, initiative, attention to de-

[1] From the report of Dr. Henry J. Gerling, Superintendent of Instruction, St. Louis, Missouri.

tail, and attitude towards school and schoolmates.

In the elementary school self-reliance, self-control, initiative, courtesy, sense of responsibility, cooperation and industry are outstanding traits which the class work does most to develop. The pupil activities most commonly mentioned to bring about the development of these traits are: (1) Group work in classes, (2) individual reports on science, social studies, health, book reviews, (3) projects, plays and programs, (4) debates or current topics, (5) extra-curricular activities, (6) socialized recitations and class discussion, reading assignments, (7) leading in the conducting of lessons, club meetings, etc.

Intermediate and high-school teachers, no matter what their subject, find opportunities for character training in their class work. The study of biography, of historical characters, of social organizations, of poetry and fiction, of daily events, of handicraft, all offer ways and means of developing desirable character traits. Cooperation is taught through the study of taxes; high ideals of living through biographical study; intelligent patriotism and self-control through history and special-day programs; thrift through savings and other forms of conservation; industry through a study of vocations; sociability through a study of sociology and government; and reliability through a sifting of facts to reach intelligent conclusions.

The home-room and advisory periods are consciously used for the purpose of promoting character development. Special-day programs, dramatization committees, discussion of general school programs—all are used to foster school spirit and a general understanding of responsibility and cooperation through student participation.

With the consciousness of educators throughout the nation now centered upon the problem of training character, it is to be expected that further development and wide-spread improvement in the direction of educating children for moral living and good citizenship will result. It is to be hoped that the St. Louis public schools will share in the movement and that every teacher, principal and supervisor will draw an inspiration from the nobleness of the ends to which their labors lead.

REPORTS

PHILADELPHIA SCHOOLS, 1929–1930

THE tenth annual report of the superintendent of schools of the city of Philadelphia for the year 1929–1930 is an optimistic statement of accomplishments, notwithstanding the fact that general financial conditions required rigid economy in all departments, and some of the major plans had to suffer serious curtailment. In spite of these handicaps, Dr. Edwin C. Broome, the superintendent, writes:

> We may truthfully say that our public schools to-day are in a better condition, physically and educationally, than they have ever been. The people are becoming increasingly content with their schools because they appreciate the fact that their schools are paying larger invisible dividends year by year on the investment that has been made in them. The only really substantial ground for complaint is that the excellent opportunities afforded by our schools are not as wide-spread as we hope to have them when our progressive program has been completed.

This program calls for a definite plan of educational guidance in operation in all senior and junior high schools, directed by competent, well-trained people, selected for this particular purpose; the extension of the library service in senior and junior high schools until each school has a well-equipped library, conducted by a trained librarian; more provision for pupils who fall behind their classes and for those who are unusually capable and discouraged by being held at the average pace of their classmates; provision for maladjusted pupils in the high schools; adequate supervision of instruction in the large junior high schools; revision of the salary schedule as soon as possible; acquisition of playing-fields in different parts of the city located near schools; the completion, as soon as possible, of the junior high school building

program; the building of new senior high schools; the opening of more after-school playgrounds.

During the year 1929–30, Dr. Broome reported that the building program was cut down about 50 per cent.; a revision of the salary schedule was postponed and the superintendent's plan of the extension of activities was reduced to a quarter of the original estimate. In spite of these disappointments, the teachers and supervisors worked faithfully and well, and the net results of their efforts, according to Dr. Broome, were highly creditable.

The personnel of the department of instruction consisted of a supervisory staff of 493; a teaching staff of 8,482, and of 1,239 in charge of supplementary activities—a grand total of 10,214. This is an increase of 191 over 1928–29. Because of financial stringency, the increase in the number of classes for the different types of handicapped children in the year 1929–30 was only a little over 5 per cent., although from 40 to 50 per cent. of the children who need special attention—physical, mental, or emotional—are not receiving it.

Dr. Broome stressed the importance of the summer schools. These schools proved immensely popular with parents and children, they turned failure into success with thousands of boys and girls, and accelerated the progress of thousands of others, who, without the advantage of the summer schools, would have been compelled to proceed at the average rate of the average pupil, when they had the capacity to proceed more rapidly. According to Dr. Broome, every pupil whose progress was accelerated represented a saving in money in the education of that pupil. In the summer schools, each pupil was given what he needed to adjust himself to the regular school program, and, for that as well as other reasons, the summer school opportunities should be extended.

One evidence of the popularity of a school system is regularity of attendance. During 1929–30, Philadelphia had an average attendance in all departments of day schools of 91.6. This was the highest on record for that city. As regularity of attendance is usually accompanied by an improved rate of promotion and by improved results in scholarship, the teachers and the principals, according to the superintendent, are to be congratulated for the success attained by them. The problem of retardation has been attacked systematically in Philadelphia. During the last twenty years, and especially the last two or three years, great gains have been made in reducing retardation, in other words, over-ageness for the grade.

Throughout the school year, standard tests were given to evaluate the results of instruction in all the grades. The results were superior to those attained in previous years in the fundamental subjects.

Promotion by subjects will be introduced into the Philadelphia high schools this year for the first time. The old plan of having the student repeat an entire term in order to make up the studies in which he may have failed was abandoned by New York City and other cities a great many years ago. According to the superintendent, this plan will, among other things, enable a student to transfer from one school to another school without losing any time and comparisons of results attained in the several high schools will be made on a common basis.

Dr. Broome reported progress in classes in citizenship for adults. He reported that classes were established at the Philadelphia Navy Yard, the Museum of Art and the Commercial Museum. Several important revisions were made in the courses of study, notably in reading for grades 4, 5 and 6, a syllabus in character education, a syllabus in safety education and a syllabus in science for grade 8.

Philadelphia has taken a leading place among the large cities of the country in giving relief to children suffering from some form of defect in speech, such as stammering, stuttering, lolling or lisping. During the year 22,144 children attended the 695 speech clinic sessions. Forty-three per cent. of the children who attended these classes were dismissed as corrected.

A division of visual education was organized and rendered excellent service throughout the schools. During the school year, the medical inspectors gave examinations to over 260,000 school children, averaging approximately 1,500 examinations daily. Among its other duties, the division of medical inspection, with the aid of the medical inspectors, makes a thorough sani-

tary inspection of all school buildings, covering such subjects as lighting, ventilation, heating, desks, wardrobes, playgrounds, drinking fountains and lavatories. A comparatively recent and unique feature of health service in the city is the periodic health examination of teachers. These periodic health examinations were instituted in 1926. They are free and thorough.

Philadelphia, like New York, Chicago and other cities, has its teacher unemployment problem. In order to help the eligible list from getting too long, the board of education lengthened the course of the Normal School. The city, according to the superintendent, is becoming known throughout the country, among large cities, as having a school system where the appointment of teachers is made strictly in accordance with the merit system.

In discussing the growth of home economics in the school, Dr. Broome writes that there is nothing more important in American national life than the home, and that nothing can contribute more effectively towards happy and satisfactory citizenship than a well-regulated, well-managed and congenial home. "The woman is the head of the home, whether the man is willing to concede the fact or not, and the future of the American home, and, to a large extent, the future happiness and prosperity of the American people, depend upon how the woman manages the home." He concludes his appeal for home economics by stating that one of the soundest subjects we teach in the entire school curriculum is home economics.

Dr. Broome defends the scope and comprehensiveness of the modern school curriculum by stating that one can not adequately appreciate the organization and processes of a modern school system unless one understands the fact that education is adjustment to life as a whole and not simply a regimen of mental training. According to the superintendent:

> Physical and emotional adjustments are as important as mental adjustments. The recognition of this fact explains the scope and comprehensiveness of the modern school curriculum. It is useless to scoff at the modern school curriculum as too general, too complicated or too extensive. If education is adjustment to life, it must be an adjustment to life as we find it to-day, not as it prevailed a century ago. The economics of a hundred years ago, while serving well the purpose of that age, would be wholly inadequate to solve the financial and business problems of to-day. The philosophy of a hundred years ago, although much of it is still useful, is not suited to meet the social needs of the present generation. Likewise the education of a hundred years ago, although it embraced elements that are still usable, is by no means sufficient to adjust children of this generation to the complex and many-sided life in which they find themselves. We can not help the youth of to-day successfully to meet the problems of their generation by looking longingly into a past, glorified by distance, and hallowed by a few precious memories, but thrown out of perspective by the accumulation of years of unremembered experiences. We must face the future, strive to understand the youth of this generation, endeavor to comprehend modern life as a whole, and arrange our educational processes, as effectively as we can, to adjust the youth of to-day to the life of to-day. This is what the more intelligent educators are striving to do. But mistakes are being made, and will continue to be made, because it is much easier to look backwards than to understand the present and to anticipate the future. Our responsibility is clear, and the success of our educational efforts will depend upon the intelligence and sincerity with which we accept that responsibility.

SAMUEL P. ABELOW
JULIA RICHMAN HIGH SCHOOL,
NEW YORK, N. Y.

EDUCATIONAL RESEARCH AND STATISTICS

AN INVESTIGATION OF THE SUCCESS OF THE INDIANA HIGH-SCHOOL GRADUATES IN INDIANA HIGHER INSTITUTIONS OF EDUCATION

The obvious fact is that students are not prepared as they need to be for success in college. It will, however, do no good to rage about the inefficiency of high schools—too much talking and too little investigating has been done already.—*L. C. Pressey.*

. . . it would undoubtedly be of much value both to the secondary schools and to higher institutions if accurate records were kept of the success of the graduates of high schools in their first

year, or at least during their first semester, of college work. After a period of years high schools would have a fund of information of their ability to prepare students for various colleges and, on the other hand, higher institutions would know what high schools were best preparing their students for advanced work.—*C. R. Maxwell (Chairman, Committee on Special Studies of the Commission on Secondary Schools of the North Central Association)*

COMMON sense, supported by many statistical investigations,[1] suggests that some high schools prepare their students for college more thoroughly than do others. Certain high schools have very high standards which they require all their students to meet, while other high schools are very lax in the enforcement of much lower standards. Some colleges, on the other hand, demand better preparation of their freshmen than do others. Standards both in high schools and in colleges differ. If the state expects to improve the standards of work done in its high schools, some method must be discovered to find those high schools which are not adequately preparing their students. Steps must then be taken to improve the quality and standards of instruction in such schools in the specific department in which they are deficient. This is surely a feasible procedure.

In actual practice the high school has a dual aim: (1) to train students in civic-social responsibility—that they may be socially efficient and individually developed; and (2) to prepare students for higher institutions of education. As between one third and one half of the high-school graduates continue in college, a ready method of measuring the success of the high schools in *this one respect* may be obtained. If most students from X high school who go to college fail in their first semester's work there, then it is obvious, other things being equal, that X high school is not adequately preparing its students for college. This condition should be remedied, and once it is discovered it probably can be remedied. The first step in this direction is to discover which high schools are sending poorly prepared students to college.

[1] Two such investigations are reported by Dean C. R. Maxwell in the *North Central Association Quarterly*, 1: 190–220, 1926–27; 4: 484–600, 1929–30.

Partially with this aim in view, the State Board of Education of Indiana requested all institutions of higher education in the state to submit to the State Department of Education, starting with the year 1927–28, a report of the success of each of their freshman students. The information asked for was each student's record during his first year of work in the higher institution and the name of the high school from which he graduated. At the request of President Edward C. Elliott, these records were lent to the Division of Educational Reference of Purdue University in August of 1929 for the purpose of analysis.

As no special forms were sent to the institution reporting and as this particular year 1927–28 was the first year of the reports, the information sought was submitted in a variety of ways and in varying degrees of completeness. Partly as an outgrowth of the difficulties encountered, a special form has been prepared. The first year's use of these form reports, 1929–30, should yield information which will be more complete, more extensive and more readily amenable to meaningful statistical treatment than was the case with the records herein reported.

Twenty-two of the universities, colleges or normal schools in the state of Indiana reported for the year 1927–28 on a total of 5,526 freshman students who had come from 663 different Indiana public high schools; 19 per cent. of the public high schools (in general, the very small, isolated rural schools) did not send freshman students to any of the institutions reporting for this year. The success of the graduates of each individual high school in the state that sent freshman students to college was tabulated. The name of the high school, its size, the length of its term, the number of students it sent to college, the average number of semesters they remained in college during their freshman year, the percentage of semester hours they failed and the percentage of mathematics and English courses which they failed were tabulated. Such a table, even for one year, occupies some 22 pages of legal sized paper. This table gives a composite result of all the students from the given high school who entered any Indiana higher institution of education. A great variation in the success of the students is to be noted.

As the average number of students which each high school sent is only 4.3 (median) it is not possible to draw any significant conclusions concerning most of these schools. Where a high school sends a large number of students to college the significance of its report will increase.

Because of the widely varying standards used by the different colleges and universities being studied here, such a table as the one just described may prove misleading. If high school A regularly sends its students to college X which seldom permits a student to fail, it has a good record. High school B, however, sends its students, in the main, to college Y whose standards are high and failures numerous. It thus has a poor record, although it may be doing an equally good type of college preparatory work.

Thus it would appear to be valuable to have a record of the graduates of a given high school classified according to the specific colleges which the students enter. This was done with the records here considered but such a table runs

TABLE I

A DISTRIBUTION OF THE STUDENTS ENROLLED IN TWENTY-TWO INDIANA INSTITUTIONS OF HIGHER EDUCATION, CLASSIFIED ACCORDING TO AVERAGE SEMESTERS IN SCHOOL DURING THE FRESHMAN YEAR, THE PERCENTAGE OF SEMESTER HOURS FAILED AND THE PERCENTAGE OF COURSES IN MATHEMATICS AND ENGLISH FAILED. THESE DATA ARE FOR THE FRESHMAN YEAR 1927–28, ONLY

Higher institutions	Number of students	Percentage of Indiana public high schools sending students	Average semesters in school	Percentage hours failed	Percentage of courses failed	
					Mathematics	English
A	827	34	1.85	17	33	17
B	69	1	1.83	17	11	9
C	234	13	1.59	11	15	8
D	1,044	39	1.68	11	22	7
E	157	6	1.73	11	20	5
F	135	6	1.64	9	14	8
G	88	5	1.90	9	13	10
H	121	4	1.87	8	16	8
I	116	2	1.68	8	20	4
J	866	26	1.44	8	13	14
K	358	23	1.76	7	15	4
L	66	6	1.82	6	0	7
M	65	2	1.55	5	8	8
N	45	6	1.98	5	0	7
O	426	20	1.71	4	3	4
P	166	4	1.86	4	5	6
Q	72	4	1.89	3	6	0.4
R	133	1	1.90	3	10	3
S	83	2	1.99	3	0	0
T	196	13	1.77	2	5	3
U	159	10	1.73	1	1	2
V	100	7	1.81	0.1	0	0
Total	5,526	81	1.71	9	18	8

Number of students and all data of this table were taken from the reports sent in to the State Department of Education by the higher institutions in Indiana.

Percentage of Indiana public high schools sending students indicates the percentages of 815 different public high schools in Indiana that sent freshman students to the college indicated.

Average semesters in school was obtained by dividing the total number of semesters the students were in school their first year, by the total number of students. A quarter was taken as .7 semesters, 2 quarters as 1.3 semesters and 3 quarters as 2.0 semesters.

Percentage hours failed was obtained by dividing the total hours failed by the total hours taken.

Percentage of courses failed in mathematics and English was obtained by dividing the number of courses failed by the number of students enrolled in the subject.

to some 73 pages in length. The number of students from each high school who enter a specific Indiana college is, of course, very small. Hence interpretation is even more dangerous than was the case in the previous table. It is probable, however, that, should such a table be kept from year to year, sufficient numbers would accumulate to make possible the definite location of those high schools which are not preparing their students for a given college. This information should be of great value not only to the state department but also to the individual schools. It is one important measure of their success.

In Table I, the 23 different higher institutions of education are compared. It is very striking to note that the average percentage of hours failed per institution varies from 17 to practically zero. This means that in one institution 17 per cent. of the semester hours for which freshman students have registered are failed, while in another institution practically all hours are passed. A similar comparison can be made for the specific failures in mathematics and English. The number of students, of course, varies greatly in these colleges, and the number of high schools from which they draw their students also varies greatly, as may be seen by an examination of this table.

Various explanations may be suggested to account for these differences in the colleges and universities in this one state. As has been suggested, the standards of the institutions vary. Some institutions may have high standards which they require their freshmen to meet. The teaching ability found in the different universities may vary considerably. Perhaps some institutions are not capable of teaching their students as are others, either because of their lack of equipment or because of their poor teachers. Thus they will have more failures. It is possible that some of the institutions draw students who are more thoroughly prepared than do others. Native ability, quite apart from training, may be attracted to certain institutions in a greater degree than to others. These and other explanations may be offered and are continually offered by various institutions to explain why they do or do not fail as large a percentage of students as does a neighboring institution. But whatever the causes are, the fact remains indisputable that the various institutions differ considerably in the percentage of freshmen failed.

Such a system of reporting to the state department of the success of the graduates of individual high schools in the specific institutions in the state is undoubtedly of value. It will eventually bring to the attention of many people the vast differences which exist not only in our high schools but also in our colleges. Perhaps in time the realization of this condition, with definite figures which establish it, will cause steps to be taken to remedy it. Poor high schools will be improved; weak colleges will die out or be strengthened. This is a worthy goal to strive for.

JOHN M. STALNAKER
PURDUE UNIVERSITY

RELIABILITY OF VOCATIONAL CHOICES OF HIGH-SCHOOL STUDENTS

SATISFACTORY planning of the high-school program of studies and accuracy in guidance advice to high-school pupils depend in part upon the knowledge of the reliability with which high-school students are able to select the vocations which they will later enter. There have generally been some misgivings with regard to using students' choices of a vocation as a basis for modifying the high-school offering. In the absence of data to the contrary this hesitancy was justified. The following data, however, give us some assurance that these choices are worthy of serious consideration.

The data reported are taken from two questionnaires: one sent to present high-school students and one to former high-school students. The one to present students asked, "What occupation do you plan to follow when you leave school?" Nine thousand, five hundred and fifty-seven (4,564 boys and 4,993 girls) responded to the questionnaire containing this question. Former high-school students were asked to list in order the various positions they had held since leaving school. For our purposes the last one listed is used. There were 1,809 men and 1,913 women who responded to this questionnaire. Many of these had been out of school but a short time. The information from such was omitted and only

VOCATIONAL FUTURE OF HIGH-SCHOOL STUDENTS

Occupations	Choices of present students		Present occupation of former students 5 to 9 years after leaving high school			
	Boys	Girls	Men	Women	Grad.	Non-grad.
Professional	48.8	59.0	27.5	50.4	41.6	13.9
Professional work—unspec.	2.3	1.0	1.5	.2	.9	1.0
Professional work—miscel.	3.7	1.2	3.5	2.7	3.0	3.9
Artists	.8	1.8	—	.5	.2	—
Musicians	1.2	2.1	.4	.5	.4	1.0
Literary work	1.2	2.4	.8	4.3	2.6	—
Civil engineering	2.4	—	.6	—	.4	—
Electrical engineering	3.3	—	1.0	—	.6	—
Engineering—unclassified, miscellaneous	8.5	—	4.3	—	2.3	1.9
Stage—actors, dancers, elocutionists	.1	1.0	.2	—	.1	—
Physicians and surgeons	6.5	.8	.8	—	.7	—
Lawyers	5.5	1.1	4.4	.2	2.6	—
Dentists and dental hygienists	2.4	.4	.2	.2	.2	—
Pharmacists	2.6	.3	1.5	—	.9	—
Teachers	3.7	34.5	7.5	39.1	25.0	2.9
Physical directors	1.3	2.1	.8	1.0	1.0	1.0
Nurse	—	10.2	—	1.7	.6	1.9
Aviators	3.5	—	—	—	—	—
Proprietors	2.2	.1	3.3	.5	1.9	2.9
Managerial service	—	—	5.0	1.5	3.0	5.9
Commercial work	5.8	2.0	18.5	4.0	11.3	14.9
Clerical service	7.4	26.6	12.9	25.9	18.0	22.9
Agriculture	4.5	.1	4.8	—	2.6	1.9
Skilled trades	9.7	2.3	9.9	1.7	4.9	17.9
Artists and proprietors	.6	2.2	1.6	.7	1.1	2.9
Building trades	4.1	—	3.5	—	1.4	5.9
Machine trades	3.9	—	2.3	1.5	1.0	4.9
Miscellaneous trades	1.2	.1	2.5	.5	1.4	3.9
School or college	—	—	12.4	9.1	11.8	3.0
Miscellaneous	2.6	.9	3.8	5.2	3.5	10.9
Undecided	11.5	6.0	—	—	—	—
No reply	7.5	3.0	1.9	1.7	1.4	5.9
	100.0	100.0	100.0	100.0	100.0	100.0
	4,564	4,993	481*	403*	801**	101**

* These totals omit 21 who did not indicate whether they were men or women. ** These totals omit 3 who did not indicate whether they were graduates or non-graduates.

those who had been out of school from five to nine years was used. This gave us responses from 481 men and 403 women.

The occupations listed on these blanks were classified according to a modification of the Counts classification.[1] The modification consisted largely in dividing professional work into a number of subheadings.

The results of this analysis are presented in the accompanying table in terms of percentage.

[1] George S. Counts, "The Selective Character of American Secondary Education," University of Chicago Press, 1922.

A casual examination of the table reveals on the whole a remarkable agreement between the choices of present students and the present occupation of former students. In many cases this agreement is exceedingly close. In skilled trades, for example, we find 9.7 per cent. of the high-school boys choosing this occupational group and 9.9 actually in it after five to nine years. Further, we find 26.6 per cent. of the girls choosing clerical service and 25.9 per cent. actually doing clerical work. This fact of agreement is of very great significance in planning the offering of a high school. It throws

confidence upon the wishes and choices of our present high-school population. Knowing that in general this is true, adjustments to pupil desires and pupil plans can be made by the administration with greater assurance that the interests of the pupils will be well served.

There are, however, certain cautions which become necessary when we analyze the discrepancies in the table. The first to come to one's attention is probably the difference in percentage between the boys who have chosen and the men who are in professional work. This amounts to a difference of approximately 21 per cent., a much greater difference than exists between the girls and women. Two other percentages throw some light upon these differences. It will be noted that 12.4 per cent. of former male students are still attending school. Probably a large percentage of these, may be all, will enter some type of professional work. If we glance through the table at the other percentages we note a marked discrepancy between the percentage of boys who plan to enter commercial work, that is, business, and the percentage of men who are actually in commercial work. We might reasonably infer, therefore, that some of the boys who plan to enter professional occupations, while in high school, are later found to be engaged in commercial work. If we note with respect to the boys the differences in percentage between choice and later occupation, it will be seen that the percentages choosing each profession are larger than those found in each profession, with only one exception, namely, that of teacher. In this case, apparently, more become teachers than plan to.

For the girls the percentages are in closer agreement than for the boys. The largest discrepancy seems to be with respect to the profession of nurse, a much larger percentage planning to become nurses than actually do. Where these go to we can not tell. From the table they seem to have been distributed pretty widely.

The last two columns of the table compare graduates and non-graduates. By an analysis of this table one would be able to criticize in some measure the interest and future of the two groups, and if one wishes, characterize or criticize the way in which our high schools are now functioning. The largest percentage of the non-graduates enter clerical service; the next largest enter skilled trades, and then follow commercial work and professions. The difference between graduate and non-graduate is most marked in professions and skilled trades, the differences amongst the professions being largest in teaching. The interpretation is complicated slightly by the fact that many students who are reported as leaving high school before graduation leave to enter another school. Thus the contrast is probably sharper than the table indicates.

One problem not answered by the table is whether or not individual pupils may not change their interests more than the table shows. The table merely presents total percentages and is thus a guide to the provisions which the high school may well make for various types of students. On the other hand, it gives us no information whatsoever in regard to change of pupil interest or success or failure in occupation chosen, the presumption being, however, that these interests are fairly permanent. This presumption is supported by data not presented here but drawn from the questionnaire received from former students. They show that changes of type of occupation since leaving high school were not frequent. Furthermore this is an average situation for a state as a whole. There are marked community differences both as to the percentage choosing different occupations and probably as to the permanence of the interests of high-school students.

WARREN W. COXE
NEW YORK STATE EDUCATION DEPARTMENT

NEW BOOKS IN EDUCATION

FLEXNER, ABRAHAM. *Universities: American, English, German.* Pp. ix + 381. Oxford University Press. $3.50.

GREENWOOD, R. R. *A Preface to Literature.* Pp. ix + 110. Macmillan. $.80.

KINGSBURY, H. B., and R. R. WALLACE. *Geometry Workbook.* Illustrated. Bruce.

SCHILPP, PAUL A., Editor. *Higher Education Faces the Future.* Pp. xvi + 408. Liveright. $3.00.

Thirty-first Annual Report of the Superintendent of Schools to the Board of Education of the City of New York for the Year ending July 31, 1929. Pp. ix + 794.